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THE

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No. 420. **SUMMARY.** Oct. 16.

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SUGGESTIONS

FOR A MORE SIMPLE ARRANGEMENT OF THE

MATERIA MEDICA,

BASED ON ITS PHARMACEUTICAL AND THERAPEUTICAL RELATIONS.

By GEORGE LEITH ROUPELL, M.D.

Cantab., F.R.S., Fellow of the Royal College of Physicians, Physician to St. Bartholomew's Hospital, Lecturer on Materia Medica at the College of St. Bartholomew's Hospital.

LECTURE XI.

(Continued from page 694.)

The class of medicinal substances which I have to notice in the first place to-day is the

X. Drugs which Owe their Efficacy to an Acid.

These have been placed to sugar, from the circumstance universally known of the facility with which saccharine fluids become acid. By what is called the acetous fermentation, alcohol is converted into vinegar. During this process oxygen is absorbed, affording us an illustration of the way in which one organic acid at least may be formed, and showing a natural connection as it were between this and the class last treated of. Let me remark that I shall confine my present observations to the vegetable acids. The organic acids, which, united with certain radicals, ethule, glycerule, &c., form oils and fats, have elsewhere been appropriately treated of.

The vegetable acids are familiarly known as substances of an agreeable taste, assuaging thirst and stimulating the digestive powers. They produce a sensation of coolness in the body, are popularly known as astringents, and are serviceable on many occasions. Taken in excess, however, they induce emaciation of the soft parts, and it is asserted softening of the hard parts, of the system, the bones. The vegetable acids are usually now divided into the monobasic, the bibasic, and the tribasic forms, which have reference to the quantity of hydrogen which they contain, capable of replacement by the equivalent of base in the formation of salts. The part which the hydrogen plays in these transformations is highly interesting, but concerns me now only so far as that when there is in the acid one equivalent of hydrogen thus available it is called monobasic; when two, bibasic; when three, tribasic, &c.

As instances of the first division, I may quote the—

46. Acetic acid, obtained by fermentation and dry distillation of wood.
47. Oxalic acid.
48. Valerianic acid.

In the second division, the bibasic, we find—

49. Tartaric acid, contained in—
Morus nigra.
Bitartrate of potassa.
50. Malic acid, contained in—
Various of the pomeæ.

In the third, the tribasic, we have—

51. Citric acid, contained in—
Citrus limonum.
Tamarindus indica.

Acetic acid, the earliest known of all acids, is met with under the denomination of pure acetic acid, pyroligneous acid, and as vinegar. The pure acid is volatile, colourless, and very pungent and caustic. The symbol of this acid is $\overline{A}$, and the formula, when hydrated, is $C^4 H^3 O_3 + Aq$. The hydrated acid, holding camphor and volatile oils in solution, constitutes aromatic vinegar, which is used as a stimulus. Pyroligneous acid is the acetic acid obtained by the destructive desiccation of wood; when raw, it has the smoked flavour of creosote, which it contains; it is usually of a pale straw colour, has a strong acetic odour, and it differs from the pure acid in strength, and in not being combustible or easily crystallizable.

There are several forms of vinegar, which is a weak solution of acetic acid mixed with various colouring matters and alcoholic products. It is manufactured in this country from infusion of malt or other saccharine solutions, and in France chiefly from the lighter wines. By distillation it is freed from its colouring matter.

The use of acetic acid is very great. In its strong form it is an efficient application to venereal condylomata, to other warts and corns. It quickly produces local action; hence is recommended as a powerful counter irritant.

The pyroligneous acid is antiseptic, preserving both animal and vegetable substances from decay.

Vinegar is used largely as a condiment for sponging the body in fever, for gargles, &c. Many vegetable substances are soluble in it; hence we have in the Pharmacopœia the vinegar of squills and colchicum.

The oxalic acid is not now employed in medicine; it was formerly used instead of the citric and tartaric acids, but it possesses other and very active properties. The oxalis acetosella is still retained in the list of officinal drugs; it has a pleasant acidulous flavour, which is owing to the binoxalate of potassa which it contains.

Valerianic acid deserves a brief notice, since salts composed of this acid combined with various bases, as zinc, iron, and quinine, have been lately introduced into practice. It is contained in small quantity in the root of the valerian; and it is supposed that, combined with the above-mentioned metallic oxides, it would be especially serviceable in nervous affections, such as epilepsy, chorea, &c.

The tartaric is a bibasic acid, its formula being $C^8 H^4 O^{10} + 2HO$. It appears in large transparent, oblique, rhombic prisms, which have a pleasant sour taste. It is extracted from the tartar of the grape, the bitartrate of potassa, which is first converted into tartrate of lime and then decomposed by sulphuric acid. It is considered to impart the agreeable acidity to the fruit of the mulberry.

Tartaric acid is largely used for making what are called lemonade powders, citrated kali and sodaic and artificial Seidlitz powders.

The tartrates are a most important class of salts. Those of potassa and soda are in constant use by every medical practitioner. Those with potassa and iron on the one hand, and with antimony on the other, are of well-known efficacy and power.

The citric is a tribasic acid, and its formula is $C^{12} H^5 O^{11} + 3HO$. It readily crystallizes in right rhombic prisms, the crystals containing more or less water, according to the temperature at which they may be dried. The formula given above is that of the acid dried at a heat of 212°; if crystallized by cooling it will contain an additional equivalent of water, and another still if crystallization be effected at a temperature of 61°.

Citrates of potassa and ammonia are largely resorted to as febrifuges given during effervescence or afterwards. The ammonio-citrate of iron is deservedly coming into extensive use; and, although there seems some question about the antiscorbutic property of citric acid, there can be none about the agreeableness of it as an ingredient in the diet of the sick, and as a beverage in the parching heat of warm climates.

Citric and tartaric acids exist in combination in the tamarind; the first, however, is by far the larger proportion, and the one or the other is found in very many acid fruits. These it will not be necessary for me to allude to; but I must not omit to state the important part which the vegetable acids enact in combination with the alkaloids, which they convert into salts, rendering them soluble, and active and efficient as remedies. A few of these may be quoted as examples, such as the kinic, which is found united with quina in bark; the meconic, which is associated with morphia in opium; the igasuric, which is combined with strychnia in the fruit of the nux vomica, &c.

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With these remarks I must conclude this division of my subject, and pass on to the next order.

XI. Drugs Useful only from their Colouring Matter.

To remove colouring principles on the one hand and to impart them on the other form part of the province of the pharmaceutist.

All are familiar with the diversified colours in nature, their beauty, their variety, and their changes. The effect of light in producing some and destroying others is known to all, and the bleaching properties of sulphurous acid and chlorine need no comment.

The colouring of our medicines is now little thought of; indeed, is objected to rather than approved of, though probably in ancient days, from the ideas entertained upon this subject, colours were themselves supposed to be therapeutical.

Colouring matters belong to two divisions, one of which contains nitrogen; the other is deficient in this principle. Of the non-azotized colouring matter it is to be remarked that they are soluble in various menstrua—water, alcohol, and ether. Alkalis change the yellow to brown, the red to violet, blue, or green; the acids change the blue to red, and the red to a brighter tint.

They all combine with alkalis, when they have a great tendency to absorb oxygen, during which process their colouring matters are destroyed. Colourless substances, again, as gallic acid and tannin, dissolved in an alkali, rapidly absorb oxygen, and become blue or purple. Silicine turns red on addition of sulphuric acid.

There is another class of vegetable products which are colourless, and contain no nitrogen, but which, on exposure to the air in contact with ammonia, yield beautiful colouring matters. Litmus and indigo belong to this class. Phloridzine, by the addition of ammonia, absorbs ammonia and becomes of a beautiful blue colour.

It may be observed that many colouring matters undergo a change in the processes for their preparation. Thus fresh logwood is of a brownish yellow, and becomes red on exposure to the air. Madder is at first yellow, and by undergoing a species of fermentation acquires a red colour.

Some of the colouring matters tinge the tongue, and the secretions from the bowels and kidneys. We have—

Yellow colouring matter from—
- Curcuma longa.
- Crocus sativus.

Red colouring matter from—
- Papaver rhœas.
- Pterocarpus santainus.
- Coccus cacti.

Blue colouring matter from—
- Roccella tinctoria.

Of these principles the turmeric and litmus are used for tests only. The saffron and red poppy are given internally in the form of syrup, and it is worth while to recollect that the saffron will stain the tongue, and the red poppy the internal mucous membrane. The cochineal is employed as a colouring agent in the compound tincture of cinchona, and the red sandal wood in the compound tincture of lavender.

Many of our medicinal agents having colouring principles are used as pigments in the arts, thus gamboge, buckthorn berries, as well as several metallic compounds, sulphuret of mercury and carbonate of lead, for example; but they do not belong to my list of colouring matters employed in medicine. I therefore pass on to the last order the

XII. On Albumen.

The last subject on my list of organic substances employed in medicine is albumen. No drug can be said to have been introduced into the catalogue of the materia medica on account of its containing this principle; but it is very frequently employed, and is of undoubted and of unquestionable utility. Albumen is employed—1st. As an antidote to certain poisons; 2d. As a means of clarifying various fluids; 3dly. It is sometimes used as a vehicle for the exhibition of medicines; 4thly. It forms a good application to abraded parts; and, 5thly. It is highly nutritious as an aliment.

The sources from which albumen may be procured, the different forms in which it appears, and its modifications, it is out of my province to consider. As fluid white of egg it is the best antidote in cases of poisoning by bichloride of mercury and the salts of copper. By its power of coagulating at 160°, it is useful in clarifying syrups and other fluids when boiled with them. Coagulated by alcohol, or in combination with acetate of lead, it gives great relief in irritable sores or abrasions of the skin. It forms an excellent vehicle when flavoured for the sesquioxide of iron. Fibrine, one of its modifications, is a most important element of nutrition, and yields in the animal body albumen, caseine, and all the tissues derived from them.

The length to which this lecture has reached warns me to conclude, and in doing so to terminate this attempt at an improved classification of the organic portion of the materia medica. By arranging the substances contained in it according to the chemical properties of the supposed active agent, I feel convinced the memory of the student may be assisted, and practical information may more readily be conveyed by a teacher to his class. Trusting that others may concur with me in these views, and fully aware of the imperfect manner in which my task has been executed, I shall rejoice at corrections of its defects or suggestions for its improvement.

INTRODUCTORY LECTURE
ON
CLINICAL INSTRUCTION.

October 4.

By JOHN F. SOUTH, Esq.,
Surgeon to St. Thomas's Hospital.

There are two methods of acquiring knowledge—the first is that by which another communicates to us, either by lectures or by books, the result of his own reading and experience, and the opinions he has formed upon them; the second, that by which we inform ourselves by our own observations on the matter with which we desire to become acquainted. These two methods, though widely different, are essentially connected, and though of greater or less value, according to the progress we make in the course of study upon which we have set out, are yet, at proper time and in proper place, indispensably necessary to its satisfactory completion.

In entering on the pursuit of any branch of knowledge, the needfulness of a competent guide, to direct us as to the readiest and safest path by which it may be followed to its attainment, and to guard us against running into error and misconception, is too evident to require much notice. All information, therefore, must, up to a certain period, be obtained from the teaching of another, either by lecture or by book, and the statements he makes must be taken on trust and received as facts, till the student have acquired such degree of information, and the powers of his mind have been so trained, as to enable him to weigh fairly the opinions inculcated by his teacher, and to determine for himself if they be entitled to the estimation which in the earlier period of his tutelage he had awarded to them.

Having obtained, by hearing or reading, the information which his teacher is capable of imparting, the student must begin to observe, for himself, the conditions, relations, and circumstances of the subject with which he had desired an acquaintance, and compare the impressions they have made on his mind with the statements which his teacher has made in regard to them. And, if what he has been taught be found to accord with the result of his own observation, he will be convinced of its truth and store it up to be made use of on some fitting opportunity. Should, however, the observations he makes, not at once verify the statements of his teacher, he will question whether his mode of observation have been correct, or his teacher's views erroneous, and will endeavour by patient investigation to ascertain the true facts of the case, and so be in a position to arrive at a correct judgment for his future guidance.

These observations apply to the acquirement of medical and surgical knowledge equally as to that of any other branch of science. The student attends lectures and reads for the purpose of obtaining some general knowledge of medicine and surgery, with the view of having his attention directed to the great points which are to lead him towards acquiring a knowledge of the nature, conditions, and character of disease, and the treatment necessary for its cure or alleviation. Having thus acquired information as to what he may expect to meet with, he proceeds to investigate, for himself, the truth of the statements made by his teacher, by comparing them with the appearances which disease presents in the living body, and by watching the effect of the remedies with which it is treated. By this personal inquiry alone can he become really acquainted with disease and its treatment. He may listen, or may read, or may do both, with the greatest assiduity and perseverance; he may quote glibly, and apply cleverly the opinion of this lecturer, or of that writer, when disease and its treatment are under discussion; and he may delight himself with the heaps of opinions of various teachers with which he has loaded his memory, and which he may have with great industry and ingenuity arranged in the best possible manner; in short, he may have become a complete *vade mecum*, a perfect dictionary or cyclopædia of medicine and surgery, and the most fluent disputant at a medical society. But all his industry has been wasted, all his acquirements are useless, if he have neglected bedside observation, and, instead of employing himself in watching the progress of disease and attending to the varieties and complications it assumes, if he have contented himself with pinning his professional faith on some favourite and even able teacher, he will most bitterly lament his negligence when, on being called to a patient, he finds his lecture and book learning of little worth towards the discrimination of a disease or of an injury, with which, in most cases, he might have been fully conversant had he made even only common use of the opportunities which a hospital affords for the acquirement of practical medical and surgical knowledge, by the application or verification of the information he has derived from attendance on lectures or diligent reading.

Let it not, however, be supposed that I would wish to discourage attendance on lectures, or to undervalue the importance of professional reading—far from it. Both are of great value, the attendance on lectures especially so, because in most cases it is the only opportunity the student has of recording and obtaining the opinions and practical knowledge of the best physicians and surgeons; and, if he do not avail himself of noting them then, he will have no opportunity of recurring to them when in practice and desirous of having the guidance of the opinion of those on whose judgment he would gladly rest, could he obtain it. For this reason I would earnestly press on you the necessity and advantage of taking notes of the lectures on the practice of medicine and of surgery. I have had personal experience of the value of this practice, and am sure if you follow my advice you will not regret it. Neither would I recommend taking short notes, heads of the lecture, as they are called, with the intention of filling them up from memory at some opportunity which never comes; but take them as fully as you can: if you have time to write them out fair, soon after, so much the better; if you have not time, you will still possess what will be of inestimable value, though the book be not quite so cleanly as you might wish it.

I think taking notes of lectures, and studying them carefully, are the best modes of acquiring information from a teacher during the course of pupilage. The student has not, and in my opinion ought not, to have much time for reading, properly so called; the lecture-room and the

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wards are the best books for him—they will afford him all the information which he can need, and it is better he should make the most of these whilst he has opportunity, and put off other reading till his hospital studies have terminated.

Still, however, the most important part of medical and surgical education is, after the attainment of a general notion of these subjects by attendance on lectures, the practice of the hospital; in the wards, and in them alone, can we make a personal acquaintance with disease; and according to the attention which the pupil pays to the cases presented for his observation, will he acquire a knowledge of disease, and have more usefully impressed on his mind the instruction he has received in the lecture-room, by observing its practical application, and the results therefrom ensuing. And if note-taking at lectures were advisable, it is ten times more so in the practice of the hospital. The ablest student will here find reliance on his memory of no use; he may occasionally recollect the leading circumstances of a few remarkable cases, which will be of little real value to him, as in ninety-nine cases out of a hundred they will not recur in his practice; but the more common, and to him infinitely more valuable cases will slip from his memory unless he book them at the time.

If, however, such notes were not, as they really are, of great worth for reference at some future time, still the practice of case-taking is of the greatest importance—requiring as it does more attentive observation of disease, and careful discrimination as to the value of the several circumstances connected with it, so as to avoid encumbering the case with a quantity of useless and, not unfrequently, absurd and erroneous statements, from which the real facts can only be collected with difficulty. It can, however, scarcely be expected that a young observer of disease should not at first labour under this inconvenience; it is only after repeated observation that he can become personally aware of the value of one symptom over another in this or that disease, and it is to the attainment of such knowledge that the practice of careful case-taking is indispensable. What the teacher lays down, serves indeed, as a guide to the student in his inquiries, but what the student hears or reads he cannot appropriate or make his own till he has personally observed and ascertained its truth. The relative value of the information derived from a teacher, and that acquired by personal observation, has been well put by an able French physician:—"To know a disease," justly observes Rostan, "we must have seen it—we must have watched it; we must have attentively followed its several stages during life, and its traces after death. Short of this we know nothing about it. But, say some, are, then, the precise descriptions of authors useless, and, when we have become familiar with the works of the great masters, do we know nothing? Is it, then, of no avail that Hippocrates and his worthy emulators in the field of observation have transmitted to us the result of their watchings and of their long experience? Far from us be the notion of holding this strange paradox. But, without allowing ourselves to be overawed by this weighty objection, let us give their due value to these two kinds of instruction, and see what the difference is between one man who *has read*, and another who can say, *I have seen*. The first is the man of the closet, who knows nothing of the earth but from valued descriptions of it; the second is the traveller, who has passed through all its lands: the one can only doubt—the other is certain. The reader is obliged to take on trust, the traveller criticises the description; this description cannot be given but by him who has seen: therefore, *he* must see best. * * * * Observe, however, what is the utility of good descriptions: they teach us ourselves to observe better; they correct our errors; they fix our attention on objects which have escaped us. Consulted *after* we have observed, they impress more deeply on our memory the phenomena we have noticed; but they must never take the place of observation. We must always interrogate nature: there is the book from whence great practitioners have made themselves; we must read as they did."—(P. 41—43.)

To assist the student further in his personal observation of disease, a peculiar mode of instruction is adopted, to which the term Clinical, or bedside teaching, is applied. In the ordinary lectures on medicine and surgery, the general symptoms and treatment of disease are laid down; and the statements then made are presumed to have been drawn from the collected observation and experience of the teacher. But in clinical instruction the student is led to the bedside of some particular case, the course of which is noted; the circumstances peculiar to which are pointed out; the reasons, why such and such treatment is necessary, given, and the results observed. In this way is seen the appliance of the principles which the teacher has laid down in his systematic instruction, or, as not unfrequently happens, in consequence of some peculiarity in the case, the reasons are pointed out, why some variation is made in reference to the usual mode of proceeding.

Such is the true object of all attendance on hospital practice, which may be more or less fully carried out according to circumstances. Of late years it has become the practice, the almost common practice, to give clinical lectures; and, if these be well conducted, they are probably the most valuable mode of imparting instruction; but not unfrequently the clinical teacher has mistaken his function, and instead of confining his observations specially to the case under consideration, and showing how, and to what extent, it illustrated general principles, he has given a systematic lecture upon the disease in general, whilst the particular case was but slightly alluded to. But, even when the teacher holds fast to the case, I consider that our ordinary mode of clinical instruction is defective, for the student is usually only a listener, and has no special interest in the case, as he should have, to make him more attentive. I therefore think that the mode of clinical instruction practised in many of the foreign schools of medicine is well worthy adoption, and it is my intention to give it a trial, if you will enter into partnership with me, to carry it out, for it cannot be effected without such engagement; as you are aware that, unfortunately, our medical examining bodies think clinical information is sufficiently ensured by the presentation of a certificate of attendance on hospital practice and clinical lectures, the actual value of which certificate is too well known to require further observation.

In the clinical school of Prague, every patient, when admitted, is assigned to a student, who becomes his ordinary, and publicly, and in presence of the professor, takes his case—noting *first*, the patient's habit of body and his previous maladies; *secondly*, the exciting causes; *thirdly*, the commencement and course of the disease up to that period; *fourthly*, the symptoms of the disease at the time of admission; and *fifthly*, the remedies already employed and their results. From the consideration of these circumstances are ascertained the distinctive characters of the disease, and its probable result predicted; in other words, its diagnosis and prognosis determined. The treatment is then decided on. During the course of the disease, it is the duty of the ordinary, daily, before the professors visit, to examine the patient, and set down in writing the changes which may have taken place, and the general appearance of the disease. On the opening of the clinical school these observations are read out, their truth confirmed, their errors corrected, and the whole amended.

"In this way," observes Bischoff, "a twofold object is attained—*first*, the student himself learns to make observations; *secondly*, a bar is put to making out the patient's case, after, perhaps, the lapse of some days, and often from an uncertain memory; by which occasion is given to such extraordinary and scarcely credible accounts of disease. In this manner the treatment is continued till its termination in a cure or in death. In the last case the *post-mortem* examination takes place; previous to which, in reference to the disease, the morbid appearances most likely to present themselves are stated. During the examination these are most attentively noticed, and consigned to writing. The whole is now compared with the history of the disease, and the previous diagnosis; the account of the examination is again read; the true or mistaken judgment exposed, and the practical results deducible from it particularized."

This mode of proceeding, with some trivial variations, it is my intention to make trial of in the present session; but you must assist in carrying it out, or it will come to nothing. I am sure that it will be serviceable to you generally, but it will be more especially useful to those who purpose contending for one of the prizes offered to the students of this school by our president, Sir John Pirie, namely, that for the best series of cases, and which, in my estimation, is the most valuable of the numerous prizes proposed for your attainment.

In conclusion, I would urge upon you the necessity and importance of diligence and attention in the prosecution of your professional studies, and, more especially, close and careful observation of the hospital practice. Every one understands the application of the old proverb, "One man may lead a horse to the water, but one hundred cannot make him drink." Just so it is with us: we may have the ablest teachers, and we may have the largest fields of observation, but unless we listen attentively to the one, and carefully scan and acquaint ourselves with the other, our opportunities are wasted, and the time will come when we shall bitterly lament having failed to make better use of them. I might say much more on this subject, but Rostan, whom I have already quoted, has spoken so well on the same point, and so fully in accordance with my own notions, that I have pleasure in putting his observations before you, as I do not think I could improve upon them:—"To make progress in the study of medicine," remarks he, "we must employ in our labours all the faculties with which nature has endowed us. The most precious of all—that without which the genius of discovery cannot exist, without which we are condemned to an incurable mediocrity—is ATTENTION. In vain do we see a great number of patients, in vain do we walk in the midst of a mine the most rich with materials for observation; if, at the same time, we do not give all our attention to disease—if we do not carry an urgent curiosity to these materials for observation—these precious objects scarcely affect our senses, we receive only a fugitive impression, just as a mirror receives the image of an object without retaining the least trace of it. Thus, inattention necessarily leads to unskilfulness, and unskilfulness conducts to error—the most grievous of all the ills to which humanity is exposed. But to avoid error, to acquire some positive knowledge, ordinary attention does not suffice; it is necessary that the attention should be earnest and continuous; the least interruption to this application of the intelligence may become the source of evils the most serious; I say evils the most serious, because in medicine *there are not any slight faults*. Arbiter of the destinies of families—sometimes even of empires—and always the depositary of the most precious property of his equals—their life and health—the least mistake may compromise both one and the other: the practitioner can produce the greatest evils as well as the greatest good. In fact, if the attention be for a moment suspended, the chain of ideas or of facts escapes you; you understand but a part of a whole which can only be known collectively, and this part may be contradictory to the whole; thus, of a useful demonstration you retain but an erroneous proposition, the application of which must be fatal. Would you have a striking example, and unfortunately too common, of the danger resulting from this want of attention? A patient is intrusted to your care; he is the subject of several ailments; his complaints make you cognizant of one of them.

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Satisfied with this knowledge, your attention is entirely absorbed by it, and you neglect to direct it to the other viscera; the person dies; you open the body in presence of other practitioners, and learn, but too late, that more continual attention might have saved from the tomb an unfortunate father, the sole support of a numerous family. A tardy repentance is the bitter fruit of this negligence, and the pain of your humbled self-sufficiency adds to the just chastisement which your want of attention deserves. Examples of this kind might be multiplied without difficulty; I trust I have said enough to convince you of the necessity for attention in the study and practice of medicine. Attentive, you will become excellent practitioners, or, as the first of Roman orators said, in speaking of Asclepiades, 'benefactors sent by the gods upon earth for the salvation of men;' inattentive, you will become their scourge."—(Pp. 59—61.)

A COURSE
OF
LECTURES ON SURGERY,
BY
SAMUEL COOPER, Esq., F.R.S.,

Professor of Surgery to University College, London; Consulting Surgeon to London University Hospital, &c.

Lecture XVI.

Gentlemen,—I was speaking in my last lecture of the character and causes of simple erysipelas; before I speak of its treatment, I ought to observe that the patient is not always out of danger when erysipelas is overcome: pus will sometimes form, and suppuration becoming extensive will prove fatal. With this observation, I proceed to notice the special treatment of simple erysipelas. In mild cases saline purgatives and medicines, diaphoretics, and low diet will be sufficient. An ounce of sulphate of magnesia, dissolved in five ounces and a half of mint-water, with the addition of half an ounce of antimonial wine, may be employed, in doses of two tablespoonfuls, given every four hours; or five grains of blue pill, or three of the submuriate of mercury, may be administered every night, or on alternate nights. But should it be a severe case, especially should the head be the seat of the disease, you will find it necessary to bleed your patient by venesection. This course is to be particularly recommended when the patient is young, the blood abundant, and the pulse strong and frequent. Bleeding, it is true, is not frequently practised in hospitals; and the course I am advising may thus seem to want the sanction of the practice which you witness in the wards; but it must be remembered that you do not here often see the patient in the first stage of the complaint; he is often brought under your notice in a very low state, in which, as I shall presently remark, a different treatment is required. In the commencement of disease, unless some very unfavourable symptoms present themselves, I should advise bleeding. On this point, however, there is a great difference of opinion in the profession; it is the custom of some hospitals to adopt from the first a treatment the main features of which are the use of stimulants and tonics; in others, recourse is had from the beginning to antiphlogistic means. The theory which connects erysipelas essentially with debility has been by many carried beyond the bounds of reason, and is now very generally on the decline. I was attending a gentleman some time ago, and in the beginning of the disease advised bleeding. A gentleman who was called in shook his head at the idea; but I was very much pleased on calling the next day to find him much better; and he soon recovered. At the same time, I should caution you to employ the lancet with great care—only in the cases which I have mentioned, and in the first stages of the disease; if you allow this period to go by, weakness will gain on the subject, and the proper time for venesection will have passed away. I have said that ordinary cases will generally yield to diaphoretics, the blue pill and saline medicines. When, in the early stage of disease, the tongue is brown, the breath fetid, and the stomach in a state of uneasiness, an emetic is often very serviceable, and should then be followed up by brisk purgatives. When the disease has been checked by bleeding and other antiphlogistic measures, you will seek to support the constitution by tonics; bark, the sulphate of quinine, and sulphuric acid will be of great value; cordials, also, and wine, with light nutritious diet, will be beneficial. But especial regard should be had to cleanlinsss, and an abundant supply of pure air, as the condition on which the efficacy of other means very much depends. With respect to external means, those of you who have attended hospital practice may have seen mercurial ointment in cases of simple erysipelas applied to the skin. I have observed its action, but my experience has not impressed me with its advantage, yet, as there are those who think favourably of it, I mention it here. Sometimes you may check the advance of erysipelas with nitrate of silver, applied a little in advance of the affected part; you may form a black line, beyond which occasionally it will not spread. I cannot say much of nitrate of silver of my own experience, but if either it or a mercurial ointment does good it must be by exciting action in the part to which it is applied. Nitrate of silver, it should be said, has sometimes been applied to the part itself affected with erysipelas. I once attended a case where this disease extended itself over two thirds of the body before the patient could be brought into a state of convalescence; this is not an ordinary case; it was an instance of what is called *erysipelas erraticum*. I have also attended cases where it came on periodically, at certain seasons, with such regularity as to be looked for, and to allow such precautions to be taken as might either obstruct its approach or allay its severity.

The second form of erysipelas which we are to consider is that in which surgeons ought to feel great interest, as it often follows surgical operations, contused or fractured wounds, compound fractures, burns, irritable ulcers, and the pricks and cuts of dissection, and is a much more severe disease than that which we have been considering: it is called *phlegmonous erysipelas*. Generally speaking, it differs not only in the higher degree of its violence, but it has also a tendency to produce gangrenous mischief in the cellular tissue, which often perishes to a great extent. When this is the case, the cellular tissue always suffers more from mortification than the skin, the higher organization of the latter resisting the action of disease longer than the tissue. It was the doctrine of Dupuytren that phlegmonous erysipelas never began in the skin, but always in the cellular tissue; and there is no doubt that this is true of what is called diffuse inflammation of the cellular tissue, and also of those cases of inflammation which follow the bites of snakes and the pricks received in dissection, as well as in some other cases, in all which the skin is only affected secondarily. But in the ordinary form of phlegmonous erysipelas there occur some cases which lead me to a different opinion, such as those instances of erysipelas which happen in sailors from exposure of the legs to salt water, and from the friction of the trousers while in that state. In these cases inflammation must be excited first in the skin. Those who may feel interested in the inquiry may see the matter well treated in a paper by Mr. Copeland Hutchinson, in "The Transactions of the Medical and Chirurgical Society."

Now, in simple erysipelas there is not much swelling, and what there is is diffused; the cellular tissue is not much involved. But in the phlegmonous kind the swelling is very much harder, deeper, and darker in colour; the skin is more raised, and sometimes the limb is increased to twice its natural size. This swelling arises from the immense quantity of serous fluid diffused through all the part causing great distention; it is very firm and unyielding, and the swelling extends very deeply; there is great thickness of skin and the subcutaneous tissue; the redness, also, is darker, and sometimes of a mottled appearance, which is caused by the different parts being affected unequally. When you put your finger on the part affected you cause a white mark to appear, but this white mark is not so distinctly visible as in simple erysipelas; afterwards to produce the white mark you are obliged to press harder. Also, when you put your finger on it, the part, in medical language, pits—that is to say, a hollow is produced; this pitting is most easily produced in the early stage of the disease; in the after stages the part gets firmer. The pain is great, and begins with heat and itching, which afterwards becomes an intense burning pain; afterwards vessels form, varying in size from that of a pin's head to the size of a pear; these are filled with a serous fluid, and sometimes contain blood. If the case proceeds favourably, the vesicles burst, incrustation takes place, and the scales fall off. If disease becomes more severe, the skin, especially about the lower extremities, turns of a purple colour, loses its sensibility, and becomes softened and covered with phlyctenæ. The skin sloughs rather, however, from a want of support from a proper supply of blood than from actual inflammation. The cellular tissue, in which purulent matter is diffused, sloughs much more than the skin itself. Where the case proceeds favourably the sloughs separate, and the sloughed cellular tissue is got rid of; but often, especially in neglected cases, the patient is lost. The tendency to suppuration and gangrenous mischief in the cellular tissue is dependent in some measure on the part of the body affected with erysipelas. The legs are very liable to this result; but you may often meet with cases where the cellular tissue has been converted into sloughs of great extent—sometimes several inches in length; then the skin turns of a livid colour and sloughs. But you do not see the skin on the sides of the head and face slough in this manner; and the reason assigned to account for this difference is, that in the legs the skin is supplied with blood from the ramifications of arteries which lie low beneath its surface, which supply is cut off when the cellular tissue is destroyed by sloughing; but in the scalp the arteries lie only just under the skin, and maintain a supply of blood during the progress of disease. Phlegmonous erysipelas never begins in the fasciæ, and an error has been committed here in supposing that it ever does; it is true that they are sometimes extensively involved, and that from certain causes they occasionally slough. The same is also true of the muscles and tendons. The violence of the disease is so great in some cases as to tend to inflammation, ulceration, and even gangrene of the synovial membrane, ulceration of cartilage, the formation of matter in the joints, and even necrosis.

The causes of phlegmonous erysipelas are many and various. Sometimes it comes on after fever or exposure to cold, but more frequently it follows mechanical and external injuries. In its treatment antiphlogistic means are employed with more vigour than is necessary in simple erysipelas. Bleeding both by venesection and leeches is generally beneficial, though not in every case; calomel followed by saline purgatives, and tartarized antimony, are necessary in the early stage of disease. I may remark, in passing, as a very curious circumstance, that leeches which, in persons of certain constitution, always bring on erysipelas, are among the best means under some circumstances of curing it. The bites of leeches are always followed by a discharge of serous fluid as well as of blood, and many practitioners have made use of them as the best means of stopping such discharge. It is, as I have already observed, in the early cases of phlegmonous erysipelas that you have recourse to bleeding, though it is not every case in which even then you may do so. The degree to which you may carry antiphlogistic treatment differs in different cases, but there comes a period when

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you are obliged suddenly to discontinue the depletion and adopt a course of treatment the opposite to that which you have been pursuing; weakness comes on, and you must therefore be cautious and change the treatment by giving tonics and stimulants, bark and ammonia, and allowing brandy, porter, and sometimes even gin, if the patient, from his habits, is able to bear it. I should have said that in some schools they make a distinction between the treatment of erysipelas arising from internal and external injuries, in one case using cold external applications, and in the other warm. At one time I used cold applications, but I thought it drove the disease farther inwards rather than cured the external part. Still, in France, at this present time a distinction is kept up between the treatment of cases arising from internal and external causes. Velpeau uses sulphate of iron both in phlegmonous and simple erysipelas, but I do not find that it has any celebrity in this country; if it does good it must be on the principle of counter-irritation. If you find, at the end of five or six days, phlegmonous erysipelas, instead of yielding to your treatment, gains on the patient, and the swelling is more intense, you must endeavour to prevent further suppuration and gangrene in the cellular tissue by making an opening. A puncture is useful, as it will allow the fluid which causes this mortification to escape; but you will remember that very likely not only a fluid is to be let out, but the cellular tissue has also sloughed, and then a puncture will not be sufficient. You will see the necessity of an incision, which, by its superior size, will let out, not only the fluid, but also the sloughing cellular tissue; and, if you have made a puncture, you will have to make an incision afterwards. Some practitioners make very long incisions, even two or three feet in length, but I have always thought this much too long on two grounds—first, because it produces a very great loss of blood to the system, which is not always in a condition to bear it; and further, because you are liable to cut through the trunks of arteries. I remember in this hospital I once was making an incision, and had the misfortune to cut through a large vein, and the stream of blood was as thick as one of my fingers. It was well that I was able to stop the blood, or the results would have been very undesirable. I think, then, that long incisions are to be avoided, for the reason that, from the quantity of blood lost, the patient is in great danger of sinking. But, besides this, it has been known to be followed by paralysis in consequence of dividing the superficial nerves. It is a good plan in a case of this kind to consider what you would like to put up with yourself, and for my part I should certainly object having a long incision made on me at all approaching to the length before mentioned. The principle of incision is, however, correct, and we are very much indebted to Mr. Copeland Hutchinson for investigating the results of this practice. He was surgeon to the Deal Hospital, and many cases of phlegmonous erysipelas were brought to him from the navy, excited in the sailors by the irritation of salt water and the friction of their trousers upon their legs in certain states of health.

When you have gone to the proper extent of antiphlogistic treatment, it will be necessary to employ stimulants and tonics; and if you consider the violence of this disease, separating skin from fasciæ, fasciæ from muscles, and muscles from one another; and that the constitution is in a state of great irritation, you see that everything must be done to support the system. Opium will be very serviceable where excitement is great.

Do not forget to remove often the poultices and dressings, and promote by all means cleanliness and free supply of fresh air. In the suppurative stage of the disorder you will find the constitutional disturbance very great—often fatal—always dangerous. The breath is fetid; the pulse, which before was strong and full, is now weaker and quicker; there is sometimes a discharge of black matter from the bowels, and early derangement of the intellectual functions. Some cases will admit of amputation, where the constitution has not been reduced beyond a certain point, and by an operation the patient will be saved.

TO CORRESPONDENTS.

THE MEDICAL TIMES may be procured by an order on any Newsman or Bookseller, or it will be sent direct by post from the Office of the Medical Times *to Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d.*

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Covers for Binding *the Numbers of the "Medical Times" are now ready, and may be had, by order of any Bookseller, or at the Office, price 1s. 6d.*

Mr. E. Daniell, Newport-Pagnell.—*We regret that our letter in reference to the General Medical Annuity Fund was mislaid. We shall not fail to publish it next week.*

A Longsufferer, *writing us rather a long letter on the subject of mesmerism, says, "Do you not think that the world's intelligence is in a strange predicament? Some are progressing to hell* nose *downwards, while others are poking their heads into hell uppermost. But where does man get his proof from that says there is no God? He it was that placed the power in the hands of this mesmeric gentleman in a very familiar manner to suit his own wise purposes. Men in this world are subject to strange delusions, but virtue only is permanent, lasting, and durable."*

Mr. E. S. Falloon, Stafford-street, Liverpool.—*We were expecting the promised communication, and could not account for the delay. We are obliged for the offer made in the note received last week.*

Senex *says, in reference to "Gilbert's Etymological Dictionary of the English Language," that "the medical world will judge of the extraordinary talent and research of the learned editor from the annexed specimen:*—MENTULAGRA (mentula, *penis—Latin; and* agra, *pain—Greek*), *a morbid state of* membri virilis vel clitoridis, *in which the erector muscles are either contracted or convulsed, &c. To have been consistent in this new style of using Latin words in the proper cases with their Latin terminations, the editor ought to have said, 'the* erectores muscles*;' and. had his modesty and knowledge of the Latin tongue been a little greater, he, doubtless, would have spoken of the morbid state of the pudendorum, &c. It is not unlikely that he found the uncouth word* mentulagra *in some old Latin work, and with the assistance of a dictionary was enabled to translate the* morbidus status *correctly; but, not finding* membri *or* clitoridis *in his lexicon, let them stand in their native garb."*

Mr. John Anderson, Norwich Union Insurance Office, Liverpool.—*We regret the delay, but it has been unavoidable. We hope, however, shortly to gratify our correspondent's wishes.*

Mr. Brady, Harrow, Middlesex, *is thanked for his communication, which will receive an early insertion.*

M.R.C.S.E., Kidderminster, *informs us, that in passing from West Bromwich to Dudley, last week, he observed over a door, by the side of the mail turnpike road, the following inscription:—*

CAN. SIR. De.
F.R.
SOLOP
J. BEDDOE

and supposes that the above enigmatical inscription must mean "Cancer doctor, from Salop." So we suppose, and lament that there can be any one in the nineteenth century ignorant or impudent enough to put up such an inscription, or any one stupid enough to patronize the owner.

Mr. Emerson, Turnham-green, *writes, in reference to the letter of* An Army Surgeon, *"I can only state, that soon after sending the letter I referred to the book, and observed my oversight; but, as I did not see any letter in your number of the 25th of September, I supposed that you did not consider it sufficient y valuable for your columns, and the supposition prevented my informing you of the fact, which "An Army Surgeon" has done.*

M. D., City.—*We think our correspondent would be liable to a fine.*

Juvenis, Bristol.—*The request will be attended to.*

Mr. Jameson.—*We shall not fail to advocate the cause of the assistant-surgeons of the royal navy. We are glad of the improvements which are likely to take place.*

Rusticus.—*The parties are doubtless impostors, and a purchase of the business should not be effected without a good knowledge of what it is worth.*

Mr. Jones, Llanfan.—*The British and Foreign is extinct. The suggestions appended to the inquiry win our thanks. The poor-law movement cannot be in a more flourishing condition. The abuse is not useless.*

M. D. *is right in the remark, that those who have done no real service themselves are most active in letting no others assume a more respectable position. But are such people worth the notice our correspondent takes of them?*

A Poor-law Medical Guardian *is thanked for his suggestions. They are valuable.*

H. N. *should send his promised paper for the perusal of the Convention.*

Mr. R. N. West's *communication has been received.*

An Inquirer.—*Mr. Fisher, of Grosvenor-street, possesses the police medical patronage. It is not worth seeking.*

☞ *We have been favoured with an immense mass of information on the poor-laws, none of which shall be overlooked. The several writers are requested to receive our warmest acknowledgments.*

Letters and communications have also been received from Mr. E. S. Falloon, Stafford-street, Liverpool; Senex; A Longsufferer; Mr. John Anderson, Norwich Union Insurance Office, Liverpool; Mr. Beady, Harrow, Middlesex; M.R.C.S.E., Kidderminster; Mr. Emerson, Turnham-green; Mr. Jameson; Juvenis, Bristol; Mr. Daniell, Newport-Pagnell; Mr. Allen, Gainsbro'; Mr. Davies, Bristol; Mr. Terry, Ballincarghy; Mr. Allison, East Retford; Mr. Newington, Gouldhurst; M. D.; A Poor-law Medical Guardian; H. N.; Mr. R. N. West; An Inquirer.

THE INDEX.

From the use of small type, in three columns, we have been able to compress the Index into considerably less space than we anticipated. It will hence be published with the present and following numbers, without the increased charge which its separate publication would have required.

THE MEDICAL TIMES.

SATURDAY, OCTOBER 16, 1847.

THE CONVENTION.

The coming Convention will try the Union Surgeons; and with them, will try, in some sort, the character of the profession.

Is there work to be done? Unquestionably. There is *wrong*—large wrong. It affects the Union Surgeon: through him the profession: and through both the poor and the public. It is both a *business* and a *duty* for us to set it right.

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The spectacle of two thousand Government officers, underpaid and discontented, presents something more than a moral wrong—a gross scandal and large public injury.

There is honour and fair emolument in every other Government situation. Take the army, it is so there—and in the navy, in the church—at the bar, in the colonies, and all Government offices. Is the union surgeon's a post of honour? Is it a source of honourable emolument?

We know the contrary. There are no laurels for that abased and abused official. Virtually he is a parish drudge on horseback, at everybody's call at all hours, day or night, in foul weather or fair—exposed to the infection of disease, the contact of filth, and that still worse visitation—irresponsible dictation from a many-headed and often senseless mastership. And for what pecuniarily? Virtually nothing: actually nothing!

The Poor-law Surgeon is then a Government official in an exceptional position. He is at once without *status* and without pay. He is scouted—disparaged—underpaid—by the Government of which he is an officer!

Are his claims, then, as a man of science so contemptible? Are his official duties, then, so unimportant? Does not the health and much of the well-being and contentedness of the poor population depend on his labours and solicitudes? Is he not an important agent in strengthening those perilous links on whose integrity depend the well-being and safety of society? Why, then, his disgraced and anomalous position?

Why? The answer is easy. The bed we lie in we have ourselves made. We have, for years past, legislated and managed and arranged for the very place we are now so discomforted in occupying! We are exceptions in the annals of Government officialism, because we have *insisted*—and against ourselves—that disgraceful anomaly.

This journal has had no hand in the demoralization and disunion which have accomplished this deplorable result. We have never been the apostles or exemplars of a low incendiarism in medical politics. It has been our aim to elevate, not vulgarize the aspirations of the profession; to create feelings of gentlemanly confidence rather than enkindle felonlike suspicion and distrust; and to beget through the whole profession that *esprit de corps* which—making the well-being of all the concern of each, and the injury of one the cause of all—erects into a distinguished and useful potency of the state what would otherwise be a useless and unmeaning community of scattered preferences and antagonisms.

The union surgeons have now to decide whether they are for a united and raised profession; or whether, in a struggle in which their own nearest interests are involved, they can make one effort for the great common concern that demands it from all? We have now for them a touchstone for their character and a test for their deserts. The measure of a man's acquiescence in injustice is ever the measure of his own want of rectitude. The love of justice in the mind and its practice in life go hand in hand; and the better organizations in the body for which we now labour may be readily discovered by finding out those who show most active interest in the public cause to which they are committed. We repeat, then, that the coming Convention will try the present race of union surgeons, and, through them, the profession.

But if there be union surgeons to whom the appeal of duty is a charm unfelt—charm it never so wisely—they should at least be open to the claims of their own deeply involved interests. The amelioration we contend for is a *vast one:* and we speak with the positiveness of mathematics when we affirm, that it wants but their active concurrence to be sure of realization. Give us union in *this* cause, and the result is in our own hands. We must have everything our own way; and this without any obtrusive or vulgar efforts at intimidation. Strong in reason and in justice, we can show that in mere justice and reason it is the best policy of Government to do us right. It is only by a blunder that our interests and theirs shall be conceived not identical. We have, in our *large* aggregation, too, a weight of moral influence most useful in giving force to an argument which, even without it, is irresistible. No Minister can persist in thinking the united *request* of 2000 union-surgeons unreasonable or unrighteous. The very moderation with which it is preferred will evidence at once right and power; and there are few Home Secretaries who would not be careful of avoiding a response which might provoke—we will not say justify—a contingency which we deprecate as unnecessary—the moral resistance of a combined profession. In truth, with the softest prayers we have in the background, unmentioned, the strongest arguments, like the beggar in "Gil Blas;" and the game of improvement, if well and properly taken up, is in our own hands. It will, after this Convention, be *our own* fault if we continue the only *gentlemen* in her Majesty's employ disparaged by—what is most improperly made—an unremunerated and unworthy appointment.

THE CONVENTION WILL BE HELD ON WEDNESDAY, THE 27TH OF THIS MONTH, AT THREE O'CLOCK, AT THE HANOVER-SQUARE ROOMS.

THE ASIATIC CHOLERA.

THE attention of Christendom is again directed with fearful anxiety to the subject of Asiatic Cholera. This dreadful pestilence, which originally developed itself in the sunny climes of India, for a long season confined its ravages to that unhappy part of the globe. Unacquainted as medical philosophers were with a malady so fatal in its consequences, the hope was indulged that the inhabitants of the West would escape its visitations; that hope, however, was doomed to disappointment, for the pestilence, which appears first to have commenced at Jessore, spread with frightful rapidity not only over Asia, sweeping away tens of thousands of human beings, but, setting at defiance all cordons and quarantines, it passed into Russia, and from thence diffused itself through various parts of Europe, and reached even our own shores.

A disease so frightful in its consequences, and so remarkable in its behaviour, could not fail to early arrest the attention of the medical profession. A variety of works, both in this and other countries, have been published upon it, and, while much real knowledge has been obtained, the subject is still enveloped in great obscurity. True it is that, with regard to the history of cholera as an epidemic, there is but little wanting to render it perfect; and yet, in spite of the accuracy with which its symptoms have been noticed, and its progress traced, the professional world is at the present moment as much at a loss how to arrest its career as at the first, when it became the subject of scientific investigation.

It would be an unprofitable task here to state theories, and then advance arguments to support or overturn them: that which will be more proper will be, to extract points most certain and important, from the mass of facts which we possess. It is certain that the cholera is propagated by a peculiar poison. This has diffused itself over the entire globe, with but few exceptions. From the plains of Bengal it passed towards the mountains of central Asia, the luxuriant and antique forests of Burmah, and the sultry countries of the peninsula of Hindostan. Along the defiles of the Hindoo Khosh, and the lower plateau of the Himalaya, across the plains of Persia, and the sandy and untracked deserts of Arabia, it pursued its singular and erratic course. Penetrating into Russia, it passed gradually over the face of Christendom. The extent of its ravages is marked by the fact, that in almost every quarter of the globe, except in Australia, and other remote islands of the South Seas, it is known and dreaded by every branch of the great human family. By tracing its progress, some have founded an argument in favour of its propagation by the intercourse of men with each other, because it is not confined to any particular soil, or circumscribed by the limits of the winds.

But a most striking and interesting fact in reference to this disease is its peculiar and irregular mode of spreading. In this respect it differs from every other known disease. It has been never known to attack individuals at a distance from land; it evinces an indisposition to traverse seas, and even rivers, although it selects the banks of the latter—it enters a place in the manner of plague, rapidly increases its virulence till it reaches its acme, and then declines. It has been stated by a celebrated writer on this subject that the average duration of a severe outbreak of cholera is under four weeks, and that it lasts with intensity about one-third of that time, during which nearly one-half of the attacks are fatal. Its cessation has been attributed by some to the acclimating or exhaustion of those predisposed to the attack. One fact seems to countenance this, viz., that troops have entered a camp which cholera has just left, and have then begun to suffer severely from it, while those who have been previously in camp have experienced no return.

It is well known that low, confined, and particularly marshy places, suffer most frequently and severely both in India and Europe. The encamping ground of the Bengal army, in 1817, affords us the characteristics of the soil most favourable for the diffusion of this malady. Mr. Jameison, in his account, says, "In the ground of the encampment in which the disease prevailed most, the soil was low and moist; the water was foul, stagnant, and of brackish quality, and everywhere not more than two or three feet from the surface of the earth, and the vicinity abounded in animal and vegetable putrefied matter; whereas, at Erich, where the army regained its health, the situation was high and salubrious, and the water clear and pure from a running stream."

A most distinctive feature of cholera is its tendency to spread along the banks of rivers, independently of human intercourse. It is not the mere moisture which aids the development, as the poison often remains close to the bank and does not attack the crews of ships lying at a distance; or it passes along one bank without touching the other, although free intercourse goes on, and then, suddenly crossing the river, traverses in an opposite direction the bank

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hitherto untouched. When it enters a town, it selects the lowest and dampest quarters for its attacks. This was the case in India, Persia, Russia, Hungary, Prussia, and England. Jungle or marshy country, however, by itself is not always the most favourable for its development. The returns, taken from tabular statements, show that the greatest number of attacks have occurred on cotton soil, which is described as open country, nearly one third of the whole on the banks of rivers, and one half within five miles of them.

It does not follow, however, that cholera will not ascend hills, although they enjoy a much greater immunity than the plains. For the first three years in India, the Himalays resisted its progress. It afterwards attacked the towns on the lower plateau, and it is a singular circumstance, which after observation has confirmed, that the per centage of attacks to the number of inhabitants was much less than in the lower regions, while the fatality was exceedingly great. Cases of cholera have been never known to occur at an altitude of more than 6000 feet above the level of the sea. Dry sandy soils are unfavourable to its development, but are not exempt; this was witnessed both in Arabia and India.

It has been supposed by some that the disease is independent of atmospherical vicissitudes, but this is certainly erroneous. Temperature, it is true, seems to have little influence on the virus. Neither the heat of the tropics nor the cold of a Russian winter retard its propagation. It also prevails in India in the cold and hot months. Sudden changes of temperature often attend its outbreak, but then other causes are generally concerned in the production of these, which may have an effect on the virus. The humidity of the atmosphere some have thought has been favourable to its diffusion. The outbreak of the disease in the provinces of Chittagong, Behar, Dhacca, and Sylhet, was preceded and attended by unusual floods in Bengal. The seasons in 1816 and 1817 were, indeed, so remarkable as to have attracted the notice of every one, and to have formed the topic of common conversation. During the progress through India, the outbreak of the disease in almost every place was attended by phenomena similar to those which marked its primary appearance. In Europe the same thing was noticed. Jannichen, of Dresden, decided that the virus had a peculiar affinity for moisture. Baumgantner, on the other hand, could trace no hygrometrical alterations during its prevalence. In Russia, it broke out in one or two places, when the thermometer was 20° F., and when the air must have been nearly dry. In India it sometimes appears at the commencement of the monsoon; occasionally, however, a very heavy fall of rain checks it. Moisture, of itself, is not powerful in spreading the disease, as we find it retarded by seas and broad rivers. Yet moisture, after all, may be one of the conditions necessary to constitue the peculiar state of the air required for its rapid development.

It is a common but erroneous opinion, that cholera generally passed against the wind. This is true to a certain extent only; a strong adverse wind always delays its progress, though it does not prevent it. From Masulipatem it passed very closely in opposition to the wind; but from Madras, the north-east monsoon setting it, it acquired a great velocity, and rapidly reached the towns and districts to the south, although, on account of the heavy rain, intercourse was interrupted, and at times quite cut off. It was at one time supposed that its course was always westward, but with no good reason, for while it was spreading from Bengal to Bombay, it was also passing easterly through Tartary and Burmah. Of late years it has constantly passed from Hindostan, through and across Burmah, to Siam and China. Cholera is also said to prevail in certain electrical conditions of the atmosphere, without any good grounds, as it is observed when the air is negatively and positively charged.

Certain states of the constitution, without doubt, predispose individuals to attacks of the cholera—those of debilitated frame, or impaired health, appear particularly obnoxious to its influence, though it cannot be denied that many are attacked in the plenitude of health and strength.

After it once travelled into Europe, it was the opinion of those who intelligently investigated the subject, that, although for a season we might be freed from the attacks of the disease, we should be again exposed to them. There is every probability, from what is now occurring, that ere long this will be the case. In August last it re-entered the Persian territory by Carraba, and raged with fearful violence for thirty leagues around Tiflis; and such a panic had seized the inhabitants of this city that for a season it was almost abandoned. At Erzeroum numerous cases also daily occurred, nearly one-third of which proved fatal. Throughout Georgia, at Redoubt Kale, and at Batoum, on the Black Sea, it has also prevailed, as well as at Taganrog, Kertch, Roston on the Don, and at Longane, in which Russian towns the mortality amounted to full two-thirds of the attacks. At Erzeroum cases have daily occurred, principally among the poorer classes; and it is thought that, upon the whole, the disease has not manifested the same severity as on the former visitation. At Trebizonde, though every precaution had been used to prevent the introduction of the cholera, it appeared there on the 9th of September; and of 300 cases reported, 103 proved fatal. A vessel named the Stambol left Trebizonde with 256 passengers, of which three fell ill almost immediately, and two of the crew died on the passage; the third was in a dangerous state when the vessel arrived at Constantinople. It appears, moreover, according to official communications, that the disease is moving more and more towards the centre of the Russian empire. On one side it has followed the passage of the Wolga, and arrived at Saratow. On the other, it has appeared in the province of the Don. The French Government has very properly ordered every means to be employed to prevent, if possible, its entrance into that country; or, should the disease arrive, to mitigate its severity. It does not appear, however, that the authorities in our own country have been roused by the prospect of the danger which now threatens us. It is high time that some efforts should be employed in order to shield the population as much as possible from the threatened calamity. Diseases with which we are intimate, from their frequent occurrence, have been especially fatal during the last few months, as the weekly returns of mortality show; and, should the same causes which are now in operation be allowed to remain, without any efforts on the part of the Government for their removal, there will be great danger, should the cholera visit us, that, instead of proving milder in its character than formerly, it will prove increasingly fatal.

Out of evil good oftentimes arises; and should the fear of a second visitation of the Asiatic scourge be the means of promoting a more efficient drainage of large towns, the better ventilation of ill-constructed dwellings, the removal of all graveyards from the midst of densely-populated neighbourhoods—in a word, the promotion of a better hygiene—then, should the disease appear, though accompanied by numerous terrors, it may be the means eventually of saving many lives and much suffering.

HYGIENE.

It is a remarkable circumstance that a separate department for cultivating the important subject of PUBLIC HYGIENE has never been instituted in any of our metropolitan or provincial schools of medicine. This is surprising, whether we look to the teeming population of the British realm, or to the all-absorbing interests involved—when health, happiness, life itself are at stake—amidst its busy myriads, constantly (though, perhaps, unnecessarily) exposed to premature decay and death. Here it must be acknowledged our Gallic brethren far distance us in the race towards the advancement of this department of science—an acknowledgment, however, confined to them as a body, the public at large in that country (if Paris be a fair criterion) not exercising a very refined appreciation of the *necessaries* of humanity. Save a few scattered and passing remarks, extra-professional details, or partial observations to be found in our medical records, we nowhere discover a centre, an authoritative source whence to diffuse the momentous elements of preventive medicine. To advance proofs of the utility of that science which specially presides over public health would be a work of supererogation; the profession, through casual rather than systematic movements, and, let us add, the public, have, by a salutary "pressure from without," compelled attention from the authorities to a subject implicating some of the most precious interests of mortality. But, with regard to our useful class, there is little doubt that the information possessed, has been acquired through its members being obliged to become conversant, however imperfectly, with hygiènic details; being naturally referred to as the only legitimate medium for authentic instruction, rather than as a necessary part of the *curricula* of education enjoined by the collegiate institutions of Great Britain, with but one exception (the University of London).

In these days of transition, with the din of political warfare resounding in our ears, it is imperatively the duty of the medical faculty to bestir itself, to place its standard far in advance of the selfish and tardy movements of "the powers that be," in ameliorating inevitable evils, and warding off the many sources of disease but too rife among our overgrown population.

It is for us to urge the Government to adopt efficient measures, by respectful but resolute solicitation, and by the extensive influence the members of our profession can so happily bring to bear in domestic circles—an influence which is, there is much reason to apprehend, not seldom culpably neglected. May a day arise when it shall be the gratifying privilege of our profession to promulgate laws based on just, because truly scientific, data, which no politic government will slight or treat with temporizing regard! But reform must commence at our own doors; it is for us in an especial manner to send forth young men to practise the "art and science of medicine," well grounded in the elements of scientific hygiène, so that they may possess extensive, connected, and readily-accessible knowledge, whereby alone decisive influence will be conceded to the precepts of the faculty. It is true,

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weight may be attached to *individual* opinions—a result attributable to personal influence and note, rather than to a recognition of the class generally.

The Health of Towns Association has done good service by its admirable and laborious exertions. The projected British "Annales d'Hygiène," if efficiently conducted, and if heartily supported by the profession and the press, will undoubtedly be a movement in the right direction. It is to be hoped that no contemptible or mercenary self-interest in the medical press of this country will clash with so desirable a project, sufficiently extensive to demand separate and exclusive representation in our scientific records. But is this association in the main a medical society?—or, if not, which class of its members represent the body? These are points which should be clearly understood. The public and professional press may enunciate, medical associations may petition; but *monied* interests will ever preponderate till the evils of neglecting public hygiène be brought to individuals' hearths and homes by impressive advice from "the rank and file" of our members. Then alone will an *agnatic* movement accomplish our aims; then may we hope to perpetuate our art, and leave the world with the proud consciousness of having "served our day and generation." Every individual of the profession should be an apostle of health, never losing an opportunity to promulgate sound views on all matters relating to health, to combat prejudices worthy only of a barbarous age, and to denounce any imbecile drivelling, whether from peer or commoner. There will be, it is to be feared, "something rotten in the state" of medicine until our "duly-qualified" *alumni* are educated on a par with other scientific communities.

THE REGISTRATION COMMITTEE.

We purpose laying before our readers the whole of the evidence given before this select body. We omit the superfluities of repetitions and interrogations, and commence with the surgical evidence as the most important.

CONTEMPORARY EULOGY.

We quote, as a sample of the general opinion expressed of the *Medical Times* by *disinterested* contemporaries, the following from the *Hull Packet*:—

"The Medical Times.—We have long admired the independent manner in which this journal is conducted. Its perfect freedom from all control of the medical powers, its manly exposure of all abuses, and its strenuous efforts for the elevation of the members of the medical profession are worthy of high commendation. Especially deserving of praise is its recent *exposé* of the peculiar disadvantages under which the assistant-surgeons in her Majesty's navy labour. We trust the effect of the representations of this journal will procure for them suitable opportunities for acquiring that knowledge so essential to the due discharge of their important duties."

POOR-LAW MEDICAL CONVENTION.

I have delayed addressing you until this last moment, in hopes that I should have been able to attend the convention of union medical officers on the 12th. As I now find that I shall not be able to be present, I take the liberty of requesting that you will place my name on the list of those who are willing to be aiding and assisting in any measures having for their object the improvement of the condition of those officers, and their advancement to that position of importance amongst the poor-law officials which, from their professional education, their social *status*, and the principal part they play in the economy of pauper relief, they are most undoubtedly entitled to occupy. Much may be done in this matter by temperate and steady direction and union in the pursuit of this object, on the one hand; but by hasty assertion, indignant reproach, or moody grumbling at or blaming the wrong parties, on the other, I feel persuaded little if anything will be achieved. And in order that we may know what it is we have to complain of, and at whose hands we must look for redress, I do hope the meeting will calmly consider the laws, and the relative position held by the administrators, to the employers and the underpaid employees. Because in most of the letters inserted in the *Medical Times* I have observed that these preliminaries do not seem to have been fully kept before the several writers.

One thing, I believe, will be granted, namely, that, as a body, the union medical officers in England are paid upon a different principle from any other official, or even contractor for the usual union supplies: that is, the quality and quantity of the services and supplies tendered by medical officers cannot be ascertained nor judged of by the parties who make the appointments, those who confirm them, nor those who remunerate the medical officers; and, therefore, those elements which form the basis of the payments for services of the salaried officers and contractors in union matters do not, nor cannot under present circumstances, have their full weight in the appointment of the medical officer; and I beg to record my opinion, that in this point lies the greater portion of the evil of which we complain.

The boards of guardians are entitled, nay, bound, as mere administrators of the public money, to take it for granted that the medical officers are the best, if not the only, judges of the nature and expense of the duties they undertake to perform, and to say, what in effect they do say, "as long as we can get 'qualified' medical men to undertake to perform the duties we require, at the salaries we pay, we are entitled to suppose that these duties and salaries are properly proportioned to each other;" and, commercially speaking, such a statement is in the ordinary course of business, and, in fact, reasonable in those who make it. It will be for the meeting of medical officers, therefore, to show the error and unreasonableness of such arguments, and rest in *statu quo ante bellum*. You may depend upon it, the public know the truth as to the amounts of union salaries; something, also, of the extent and nature of the duties; and, therefore, little more weight will on their part be allowed to one huge professional groan, than they at present allow to some hundreds of individual grunts of dissatisfaction. They will still say, "Gentlemen, you offer yourselves, and take the salaries in rotation as fast as the medical office is to be filled; nay, you rush forward with anxiety, hustle one another, canvass, solicit, &c., all concerned with making these appointments; yet, as soon as you obtain them, you join in the cry of your brethren in office, viz., 'Eheu! Pil. Garlick.'" This is a melancholy fact, and leads to the conclusion, that it is the fault of the gentlemen of the medical profession themselves that most of the evils of which they most righteously complain do, nevertheless, continue to exist. But, further, there is practically no remedy to be looked for at the hands of the medical profession. Young men are "coined" off, and must endeavour to come before the public signalized by some circumstance of recommendation; and the sacrifice made by taking a union appointment is not by any means the greatest required in order to place the young practitioner favourably before the public. The boards of guardians, as before stated, view the matter as a "business transaction," and consider it important only as it affects "the rates." The commissioners say the local boards must know best the character and *status* and fitness of those they recommend for the appointment; and our duty lies in the narrow compass of restricting those appointments to certain classes, knowing and affecting to know nothing of individuals; and lastly, the medical men accept the salaries and grumble, but still continue to accept. Thus it is that the only party most interested, and who suffers most severely in the first instance, viz., the pauper, has no voice in the matter; and, unless it is a principal object of the meeting to show that such is the case—in other words, to convince the commissioners, the guardians, the public, and last, though not least, her Majesty's advisers, that one grand and most serious effect of the present state of the medical union officers is a vast amount of unheard-of pauper suffering, ending infallibly in a very great increase in the amount of "the rates"—unless they do so, I apprehend we may rest contented as we are. That the effect I hint at is a true one, nay, a necessary one to the pauper, I know; and that this effect upon him involves necessarily a serious and permanent levy upon "the rates," cannot but be admitted, if the first position is true; and then the postulates are not easily disproved; and if it be so, I cannot see how it can be denied, that the present mode of appointment, and the present inadequate remunerating of the union medical officer, is an act of gross mal-administration, of serious injustice to the pauper, and most wasteful of the ratepayers' money; and lastly, that it is the duty of a Christian and humane public, of her Majesty's Government, of the commissioners, and the boards of guardians, to see that the medical relief of the poor is a proper and sufficient one, carefully and abundantly administered, accessible without difficulty, and trusted in hands who have a personal interest in seeing that it ought to be so characterized; and this duty is inalienably attached to the parties above mentioned, involving them here and hereafter in a heavy responsibility, and, moreover, will never be discharged until they unite in sufficiently paying those who undertake this duty, and, moreover, giving to them that consideration amongst the workers-out of the new poor-law principles which their importance towards the success of these principles merits and requires. I have admitted that the medical body are to blame for many of the evils of which they complain; but I beg most distinctly to state, that it is only relatively, and not in the abstract, that they are chargeable with the continuance of those evils. They cannot help it. Would they combine and strike? Were it possible, they must certainly, and in a short time, succumb to the force of public opinion; if their own good sense did not sooner make them ashamed that, as a body of mentally-endowed and cultivated men, they could ever have stooped to the use of so brutish a means of assault or defence. No union for coercive purposes ever did or ever can flourish; therefore it is not to be seriously thought of as a means towards an end. For colliers, weavers, and Sheffield grinders it may seem just to gauge the amount of intelligence to be looked for in those and other classes who form unions and strikes, but not for men who are now asking from the public that consideration amongst intellectual beings which they assert belongs to them. No, Sir, rather let the present holders of medical offices in unions unite in the resolution, that the other result of the mismanagement in the medical relief, in some degree also chargeable to them, viz., an inadequate and meagre attendance on the pauper, whereby he suffers, shall no longer lie at their door. Let them conscientiously perform their duties to the poor, and publish to their brethren and the world the loss such performance of duty infers to them; and from the statistics to be obtained from the registers of sickness and mortality in their several unions, let them collect a body of evidence to establish the average amount of work done for the last seven years; and, then, let them move the Government of England to order that their salaries in the several unions shall be proportionate to said averages; and so, as far as the medical officer is concerned, he will be in a right position before the public; and in the

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strength of that position he will be more entitled to demand justice than at present, and the rulers of his interests, I believe, will be more willing to accord it.

In her Majesty's late Administration the point of medical officers being partially paid by Government was mooted. Why should it not be so generally? The rate-payers are able, in most unions, to meet the demands made upon them; and if, in our sister island, it should be found otherwise, it might be well enough to assist them from the common fund of the country. But if, instead of paying the medical union officers, the Government would fix their salaries upon an average of their services, obtained as above stated, and so restrict the boards of guardians in their erroneously-called economy; and if they would appoint a staff of medical visiting surveyors to see that the pauper has his dues from the medical officer, there would soon arise a system fraught with good to all parties.

From the lists of the army and navy medical officers, not in actual service, the staff of surveyors could be easily obtained, and they could be paid from the rates of the several unions in proportion to their extent or importance: a mere fraction from each would suffice.

Lastly, the Colleges of Physicians and Surgeons, and the Worshipful Company of Apothecaries, would form a competent court to decide the proper amount to be paid upon such statements of average services, or, rather, I should say, these bodies would be competent to advise her Majesty's Government as to what would be an adequate remuneration for such services; and lastly, an order in Council would be a competent authority for establishing the new order of medical remuneration at once, so that the delay required to introduce such a measure in the forthcoming Poor-law Amendment Act might not be the excuse for continuing the serious evils which exist one month longer.

I have thus, Sir, hastily sketched my own views upon the subject which will be before the meeting, and will thank you to make those gentlemen present aware of these views.

I forward you £1 towards expenses; and if a permanently-organized body of medical union officers for the above-detailed purposes is arranged, I shall be glad to continue to subscribe towards paying reasonable expenses, at least until I give notice to the contrary.

I have the honour to be, Sir, your most obedient servant,

JOHN BURTON, M.D., &c.

Walsall, Aug. 10.

SUGGESTIONS TO, AND REMARKS ON, THE CONVOCATION OF POOR-LAW DOCTORS.

[To the Editor of the Medical Times.]

SIR,—Archimedes boasted that if he had a basis for a fulcrum he could construct a lever which would move the globe itself; and, reasoning from analogy, the contemplated convocation may be made a basis upon which a lever may be constructed, and, if judiciously put in motion, will move the "three kings of Somerset-house," and agitate England from the Tweed to the Isle of Thanet, and from thence to the Land's End.

As there are several important parts in a mechanical lever—so there are important parts in a moral lever—1stly, there is a basis; 2ndly, the fulcrum; 3rdly, the lever; and, 4thly, the acting power, by which all the machinery is put and sustained in motion. Let, then, the aggregate convocation represent the basis; their contributions towards the cause, the fulcrum; their acting members, chairman, secretary, &c., the lever; and, lastly, but most important of all, the unanimous co-operation and hearty aid of the whole. If we are to gain our sanguine expectations in this cheering enterprise, we must be united, heart and hand. It will not avail ought for us merely to meet in London, and deliver speeches, and pass resolutions, and then fancy victory is ours. No, the adamantine resistance against which our moral lever will have to be directed is too powerful to be easily jolted aside. We may rest assured that nothing but a long pull, a strong pull, and a pull all together will avail. We must not imagine that half a dozen pulls by so many individuals, whilst the majority remain idle spectators, will have the desired effect. No, we must all come boldly and resolutely forward, each lending all the aid in his power, collecting facts bearing upon his particular case, and courageously, though cautiously, submitting them to those in authority, and politely demanding redress; and so sure as the sun shines in the heavens, so sure is victory gained.

The nefarious conduct of accepting places vacated for bad pay has taught the commissioners a bad lesson.

Again, I beg to suggest that the absurdity of fixing the salaries according to the population of the parishes be emphatically insisted upon. I know some districts with double the population to the one I hold, which have not got more than a tithe of the paupers in my district; and yet the salary is regulated in both according to the population, regardless of the pauperism in either.

Unite! unite! Our profession and our homes demand our every effort in this struggle.

I am, Sir, your obliged servant,

Stokenchurch, Oct. 9. HUGH HASTINGS.

P.S.—Copying Mr. Livett's active example, I have written to all the officers of the Thame Union, suggesting the propriety of holding a meeting, previously to the 27th inst., to devise plans for our co-operation with the "Convocation," and to appoint a deputation thereto. Let other unions also do the same. H. H.

[To the Editor of the Medical Times.]

SIR,—The *Lancet* is certainly getting imbecile, if not idiotic. He is abusing you now every week for urging a very feasible plan for helping the poor doctors. He pities and bewails us in his pages, but what has he practically attempted to do to assist us? Nothing! in or out of Parliament. I fear many of us are blinded by his fine words, and hope that he will do something sometimes. I have watched this man these fifteen years, and have seen his bubble castles all burst one after another, excepting one—*the* one—being made coroner. There's the rub, worth all the rest and a thousand besides. Well, if he can't help us, why don't he leave you alone to try? Because he don't care a straw about us. If you fail it can be no harm, and would, I think, be fine sport for him. But he fears you'll succeed, and that would be dreadful! However, I request you'll get my name affixed to the requisition you state to be in preparation.

A MEDICAL OFFICER.

POOR-LAW REMUNERATION.

[To the Editor of the Medical Times.]

SIR,—I enclose a copy of the returns made by the medical officers of the Basford Union; and, if you could contrive to insert these in your journal of Saturday, it might be a guide to other unions to display forth their inadequate salaries at the National Convention. I have forwarded these returns to the poor-law commissioners and the board of guardians. A simple statistical paper like this speaks volumes, and shows that in a union like ours, where the population amounts to 59,687, and an acreage of 88,020, the medical men are positively working at a loss to themselves. The guardians say, "Oh, but the extras amount up!" But I can a tale unfold of the petty ways resorted to to keep these down to the lowest possible mark. I wish all union surgeons would be up and stirring in this matter, but I fear many will stay at home and let a few fight the great fight for them.

Yours very truly,

ALFRED EBSWORTH.

Bulwell, near Nottingham.

RETURNS PRESENTED BY THE MEDICAL OFFICERS OF THE BASFORD POOR-LAW UNION, OCT. 2, 1847.

Districts.	Population.	Number of Parishes.	Acreage.	Number of patients attended in the year ending June 25, 1847, including permanent paupers, &c.	Cost of Drugs and Horse Expenses.	Present Salary.
Mr. Norman .. .	4,429	4	9,160	368	£45	£30
Mr. Smith	11,701	6	17,960	703	£60	£70
Mr. Orton	4,000	2	3,780	434	£20	£20
Mr. Paulson	2,000	1	5,700	Numerous.	No return.	£10
Mr. Hemsley	1,400	3	6,000	52	No return.	£13
Mr. Davidson	3,240	5	6,470	225 to 250	£25 to £30	£30
Mr. Longstaff	5,223	2	2,290	467	£45	£40
Mr. Ebsworth	8,100	8	14,969	800	£55	£50
Mr. Graham	13,197	2 Several Hamlets.	7,390	988	£60	£65
Mr. Burrows	5,500	8	8,930	200	£25	£20
Mr. Fowler	8,022	3	7,130	250	£25	£25
Union Workhouse (Mr. Ebsworth, M. O.)	1,183 Admissions.	..	..	500	£35	£45

ALFRED EBSWORTH, Secretary.

WAKLEY AS A FRIEND TO LITERATURE.

[To the Editor of the Medical Times.]

SIR,—No man indulges in greater personality and abuse than Mr. Wakley; he exceeds even the American "rowdy" in the choiceness of his language. The Yankees have discovered this, and made Mr. Wakley's late speech the subject of editorial remark in the *New York Courier and Inquirer* of Sept. 15. Mr. Wakley is a member of Parliament and a coroner, and, moreover, a medical man, and one, forsooth, who is continually lamenting the low *status* in which the profession is held by the public. Can this be amended, when a surgeon who holds such a high position disgraces himself by the use of language so pitiful and disgusting?

I enclose you the remarks of the American paper alluded to, and I beg you will insert them in your valuable journal, and thus show to our profession a very unworthy and false member of it. I am, Sir, your obedient servant,

London, Oct. 11. A F.R.C.S.

"Stump speeches in this country are not usually distinguished for any great elegance of language or profundity of thought. But from the reported speeches of English candidates for Parliament, during the recent elections, we are quite sure that they are far superior to those of our trans-atlantic neighbours. The speeches of their candidates are, with very few exceptions, sophistical in reasoning whenever they attempt that process; low in style, and appealing, in a degree to which even our most excited contests are strangers, to the worst prejudices and passions

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of the ignorant multitude. The following paragraph is an extract from a speech made by Mr. Coroner Wakley, a former member of Parliament, and editor of the London *Lancet*, in opposition to Mr. Samuel Warren, well known as the gifted author of 'The Diary of a Physician,' 'Ten Thousand a Year,' and other works of great ability and interest, who was the candidate for Finsbury:—

"'This Warren informs us he is on the York circuit. That is where he is gone to—looking out for the pence of some poor devil locked up in York Castle, or foraging for some fellow, fool enough to give him a brief. There's not such a blockhead in the county of York, I can tell him. He's a writer for the magazines. He has scribbled some trash that he calls 'The Diary of a late Physician.' Why, if he has got any brains—why doesn't he write for his own profession, instead of talking nonsense about physic. I'll warrant the fellow doesn't know a dose of rhubarb from a dose of Epsom salts. He has also written a thing—a novel—entitled 'Ten Thousand a Year.' It is easier to write about ten thousand a year than to make it; and I rather think Sam Warren knows that much.'"

We think we may safely say that the stump speeches of those politicians in this country, who hold anything like the social rank and official consideration of Mr. Wakley, would be sought in vain for appeals so pitiful in tone, and so contemptible in both spirit and language, as this. Whether it is because the mass of our people are more intelligent than those of England, or whatever may be the reason, we believe such an address as that would excite only disgust in any audience that could be brought together in New England.

"The Boston *Transcript* suggests that Mr. Wakley would go down to posterity in fitting companionship, by the side of Tittlebat Titmouse. He is probably taking the only means in his power of going down to posterity at all. Those who have a hunger for notoriety, without the ability to achieve it in any honest way, usually seek their end in some such mode as Mr. Wakley has adopted. Sir Thos. Lucy would never have been heard of in our day, but for his trial of Shakspere for deer-stealing; Salmasius is remembered only as Milton's opponent; and C. J. Ingersoll's infamous slanders of Daniel Webster gave him a better chance of future fame than his books could ever win.—*From the New York Courier and Inquirer*, Sept. 15.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

William Lawrence, Esq., F.R.S., called in, and examined. (June 21, 1847.)

Self-description.—I am president of the College of Surgeons; have been a member of that college about forty years; have seen the bill introduced in the present session, purporting to be a bill for the amendment of the law regulating the practice of medicine; have formed an individual opinion unfavourable to the bill.

The College Petition.—The petition presented to the House of Commons against that bill, on behalf of the college, signed by me as president, is the petition of the president and vice-presidents, for it was considered necessary that the petition should be sent in at a short notice, not sufficiently long to allow the council of the college to be summoned, and their collective opinion to be taken on the subject; but the petition has been subsequently approved by the council, as expressing their sentiments; indeed the council had previously met and resolved on opposing the bill, considering it injurious to the college and detrimental to the profession; and it was in virtue of that resolution and a further direction from the council to the president and vice-presidents to act in the matter as circumstances might seem to require, that the petition in question was sent in by the president and vice-presidents.

Registration Generally.—I do not see any objection to a registration of medical practitioners that should set forth the qualifications under which they practise; a registration setting forth the qualifications under which they practise would necessarily also set forth the classes into which the medical profession generally is now divided; should consider that the only kind of registration which would give the public proper information. Such a registration as is proposed in this bill, in my opinion, would delude the public; it would lead them to form erroneous opinions.

Objections.—The registration proposed in this bill would place together, under one common description of persons "qualified to practise medicine," all physicians, surgeons, apothecaries, and persons who were in practice before the passing of the Apothecaries' Act, who have given no evidence of education and undergone no examination at all. If I interpret the bill rightly, a person who had been examined by the Society of Apothecaries only, or a person who, having been in practice before the passing of the Apothecaries' Act, had undergone no examination and given no evidence of education, would be qualified to hold any description of professional situation as physician or surgeon, or any other situation belonging to the profession. To a person licensed only by the Apothecaries' Society, and never examined by the College of Surgeons, the bill seems to me to give a legislative qualification as surgeons to hospitals; I suppose the good sense of the managers of those institutions would rather correct the absurdity, but, as far as the bill goes, it would go to do that. The safety of the public would entirely depend upon the governors of their institutions, and not upon the law. If my interpretation be right, the sanction of the Legislature would be given to a measure under which a person passing the Apothecaries' Society, and obtaining a licence to practise as an apothecary, might be appointed surgeon to the largest hospital in London. I think the public safety or public policy would not be consulted by such legislation. The certificate (of this bill) would be wholly unnecessary to parties who are now in possession of the diploma of the College of Surgeons; the certificate in addition to that cannot be necessary, and it would not convey the information which the diploma under which those parties practise does convey. If my interpretation of the bill be correct, and its tendency be the establishment of a single faculty, such an effect, if produced, would lower the profession as far as legislative enactment could do it.

The New Charter.—By the establishment of a single faculty in medicine, the character of the individual as a surgeon would be lost; there would be no inducement to undergo the longer and more elaborate education which it has been the object of the recent charter granted to the college to encourage. The new charter requires that the person shall have attained the age of twenty-five before he can be admitted as a fellow of the college, and the charter, in connection with the by-laws framed under it, requires a much longer period of study: for instance, six years in a medical school. That postponement of the period of practice in connection with the fellowship affords all the encouragement that such regulations can afford to a longer and more elaborate education; it gives a greater time for a good preliminary education, which the council of the college consider a matter of great consequence, and that leads to a much more elaborate and perfect professional education. On the whole, the new charter granted to the College of Surgeons meets with my approbation, and the opinion of the council collectively is, that it has answered the purposes for which it was bestowed on the college, and that it works very well. Experience confirms me in the opinion that, on the whole, the changes made were judicious. Under the old charter the council consisted of twenty-one; under the new of twenty-four. Under the old charter the remaining members elected one to supply a vacancy; the council was self-elected. Under the new charter the vacancies are filled up by election by the body of fellows created under that charter, amounting now to about 600 in number. The members of the council under the old charter were elected for life; under the new charter for a limited period, three years—at least, the provision is, that three members shall go out each year, being eligible for re-election; but they must be proposed and seconded, and submitted to ballot, just in the same way as members newly elected. The old council made their by-laws subject to the sanction of the judges; the signatures of three judges to the by-laws were required; the object was merely to see that they were conformable to law. The by-laws under the new charter are submitted to the Secretary of State, who is to consider the expediency or non-expediency of the by-law. The expediency of the by-laws is now controlled by the supervision of the responsible officer of the Crown. The by-laws are also submitted to the chief justices with respect to their legality; I do not know whether that provision, however, exists in the supplementary charter. The examiners under the old charter were elected for life; or, I believe, the expression was, "during the pleasure of the council;" I am not quite certain without referring to the by-laws, but it was in the power of the council to remove an examiner for sufficient causes, if they thought fit. Under the present charter the examiners are appointed during the pleasure of the council. Under the old charter no persons were eligible to be examiners except members of the council; under the new charter any of the body of fellows are eligible. Under the old charter the members of the college have always been considered by the council to be entitled, in the exercise of their profession, to such protection as it was in the power of the council to grant legally; they enjoy by certain laws some immunities, that is, exemption from liability to serve on juries, or to fill parish offices. They have always been entitled to enter the museum and make use of the library of the college, and attend all the lectures delivered there. The new charter confers on the members of the college privileges or rights which they did not possess before, namely, that of becoming a fellow; and, in virtue of that position of fellow, of holding office either as a member of the council or as examiner, if elected, or any other office of the college; and they also enjoy the elective franchise so far as the election of the members of the council goes. And they choose from among themselves?—They do. The fellowship is only obtained now by those who have undergone a long course of education, comprising six years' study in a medical school, of which three years must be passed in the schools of London; and then there must be evidence of a good preliminary education, either the degree of master of arts in a university, or evidence of an education equivalent to that which would be required for that degree. There must also be some other evidences of professional acquirements. They must give in reports of cases taken by themselves. They must have attained the age of twenty-five, and they must undergo a long examination; they are examined on two successive days: the subjects of examination on the first day being anatomy and physiology; and on the second day, pathology and surgery. The fellowship is granted on the evidence of such an education, at such an age, and after having gone through such an examination. A person would not begin his professional study until eighteen or nineteen years of age, so that he would have time for a good preliminary education in the classics and mathematics, and evidence of that is required. Evidence of classical attainments is required, and of mathematical attainments; that is not the case at this present moment, but it will be after 1850. The examination is of a stringent description, applied to the higher branches of knowledge of the profession—entirely of that character. Part of the examination in anatomy is the performance of dissection, or the execution of surgical operations on a dead body in the presence of the examiners. A greater degree of knowledge is secured by that arrangement for

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the fellowship than heretofore was necessary for admission into the governing body of the college. I see already that this new charter, carried faithfully into execution, will operate for the advantage of society by ensuring emulation in the profession, and higher attainments generally in those who stand out as candidates for the fellowship; and I have no doubt that as time passes on, as the fellowships will in future be confined to those who have undergone that kind of education, it will do all that an act of Parliament or a charter can do towards accomplishing the object of promoting a more extensive and elaborate education; and thus, of course, advancing medical science and increasing the utility of the medical profession. I entertain a strong objection to this bill from feeling convinced that it would be injurious to the College of Surgeons, and, therefore, hurtful to the public.

The Registration Bill Described.—It appears to me to be entirely calculated to do injury, and incapable of doing any good. I would beg to observe to the committee, that I speak with reference to the nature and operation of this bill as the organ of the council, I may say as instructed by them on that subject; and my own individual opinion coincides. The council met when this bill was first introduced, in order to consider it, and form an opinion on the subject, and they came to a unanimous vote that it would be necessary to oppose the bill; there was no hand held up against the resolution.

The Secretary of State as Chief of Registration.—It appears to me that the Secretary of State for the Home Department is not likely to have the knowledge that would be necessary to enable him to perform the duties that are imposed on him by this bill, unless when he received the seals he should also become impregnated with a knowledge of the medical profession. He is, I think, required (I have not the exact words of the clause in my mind) to regulate medical education and medical examinations, and to have returns from time to time of the nature of the examinations, and to depute persons to attend and to see how they are carried on; I do not consider that the Secretary of State can be competent to exercise those functions. I should think that he cannot have the information which would be necessary for the performance of those offices which require the best judgment of persons well acquainted with medical education, and with the arrangements and the general wants of the profession. I do not see how a Secretary of State can be competent to such duties; he must necessarily in the performance of those functions rely upon others. I suppose he would take the advice of anybody that he chose to consult, if he acted upon advice; there does not appear to be any intermediate agency by which the Secretary of State could perform those offices; there is no council or body of that kind on which he could rely. The decision of the Secretary of State, acting on irresponsible advice given by unknown parties, would not command the confidence of the public and of the profession in the decision.

A Council of Health.—The policy of establishing a Council of Health in this country is a subject that engaged the attention of the council of the College of Surgeons on a former occasion, with reference to bills previously introduced into the House of Commons. Individually, I have reflected upon it, and, as far as the regulation of professional education goes, and the regulation of the examinations which parties who are to enter into the profession have to undergo, I do not consider such a council necessary. I conceive that the constituted bodies in the profession as they now exist—the Colleges of Physicians and Surgeons, for example—can best regulate those matters. If, however, a further superintending authority were required, I think that a Council of Health, which might embrace medical education, examinations, registration, and perhaps other subjects, consisting of such persons as you have now suggested, would command the public confidence, and would not be disapproved of by the profession. The admission to equal privileges of practice of all members of the profession throughout the United Kingdom, security being taken for equality of attainments, is a very extensive subject, and would require, I think, to be considered with reference to the general scheme of arrangement of the whole profession. If there was to be a general plan of medical reform, so called, or anything that should give a new arrangement to the profession, such a scheme might probably be a part of it. The bill we are now considering I do not regard as a plan which would give security for equality of attainments; I doubt very much on the subject myself; I do not think that you can ensure equality of attainments exactly. As I have already said, it does not appear to me that the Secretary of State can regulate a subject of that kind; he has not the knowledge necessary for that purpose. Assuming that Scotch physicians had, as far as circumstances will admit of, an equivalent education (I put that first), it is necessary to exercise a strict supervision to see that the education is equivalent. It would then be a question whether Scotch physicians should be admitted to practise in England in the same way as English physicians are. Another question would be whether Scotch physicians should be admitted to practise as apothecaries in England without undergoing the same special examination which the law compels English apothecaries to undergo. To descend into details, I rather think that at St. Andrew's they have no medical school and no hospital, and that they do not require residence at the university in order to confer a degree; and, if you admit St. Andrew's physicians to equality of practice in London, you may as well throw away all qualifications and all examinations, and leave it open altogether, trusting to chance as regards attainments it would be quite illusory. As to whether it is safe to leave man to the exercise of his own judgment as regards those whom he calls in to aid him in his last extremities, the general practice of all countries supposes that men are not capable of forming a sound judgment upon the matter, for certain examinations, and qualifications founded upon those, are, I believe, usual in all countries. Mankind are not judges of professional skill. The medical profession, in that respect, is different from the profession of the law; the talent and skill of the barrister are exhibited before the public, and the public, therefore, are competent to judge; but the skill of the medical practitioner they are no judges of. As to the argument that a certain standard is adopted by the Legislature for the poor—for instance, in reference to the general practitioners—and that you do not want any further for the rich, I do not know that you have any other standard for the rich; as the thing at present stands, the standard is the same for all—that is to say, the standard of qualification for the physician, the standard of qualification for the surgeon, and the standard of qualification for the apothecary are the same, whether attending the poor or attending the rich; there is no difference. The examination of a fellow of our college is very different from the examination of the Society of Apothecaries for a general practitioner; but that stricter examination is not so much in reference to actual practice as to the point of encouraging longer study and more perfect cultivation of medical science; and, of course, that acts ultimately in raising the qualification of the whole profession. The superior excellence tested by the higher examination, which is confined only to a few practitioners, by emulation unquestionably stimulates the exertions of the great body of the profession usefully to the public; I see that it does so at this moment in reference to the fellowship of the College of Surgeons. Among the rising members of the profession who are qualifying themselves to come into it, greater exertion is manifest in consequence of that higher examination which they intend to undergo, in order to enter the higher department of the profession. They are required to work harder. The general estimation of the whole body of the profession depends upon public confidence in, and upon the social position of, some particular members of it who are more distinguished.

One Faculty.—If the standard of the single faculty should be somewhat raised, but not much, on account of the small remuneration which can be given in the rural districts to the great body of the profession, the new standard would not compensate for the loss of dignity in the higher branches of the profession, even though a somewhat higher examination of the whole body of general practitioners should be the consequence of the establishment of a single faculty; the idea of a single faculty proceeds on those levelling principles of equality which are found to be injurious wherever they exist in practice. If you were to attempt the same thing in the law, or in the church, or in the army or navy, it would be prejudicial; and in those cases it would be so absurd that it would be scouted at once. It is more easy to pull down than to raise: you cannot produce equality by raising; you can only do it by pulling down. This general principle is applicable to surgery more particularly, because there is very little encouragement to men of superior talent to enter it; it offers none of the great prizes which the professions of the law and the church hold out; and, consequently, the superior heads go into those professions. Our petition ends with the expression of this opinion—"That your petitioners consider that in this and several other respects the proposed bill would injure, if not destroy, the rights and privileges conferred by royal charters and acts of Parliament on the Royal College of Surgeons of England and its members; they believe that, by blending the existing institutions in the profession, and reducing all its members to one level, it would discourage persons of education and respectable position from devoting themselves to the study and practice of medicine, and thus be deeply injurious to the public." I adopt that opinion individually; and it has been adopted, as I said before, by the council since that petition was presented.

By-Laws.—By the new charter all its by-laws must have the approbation of the Secretary of State. Those by-laws and ordinances embrace the education and examinations of the new order of fellows. The rules according to which examinations take place must have the approbation of one of her Majesty's Secretaries of State, and I approve of that regulation; it affords a security, in the opinion of the public. The Secretary of State may be competent to sanction regulations originated and framed by the college authorities. The regulations in the by-laws are of simple character, such as—"There shall be an examination of two days; one day on such a subject, and one day on such another." The Secretary of State can judge of such matters. But to determine all the particulars in the curriculum of education, to fix the subjects and the mode of examination, requires a knowledge of details, which the Secretary of State cannot be expected to possess. With regard to the measures which Sir J. Graham introduced in 1845, respecting the council of health, there were three or four editions of the bill, differing from one another. If there were to be a measure for the general regulation of the profession, it did not appear to the College of Surgeons that the establishment of a Council of Health would be objectionable; in fact, it would afford a security on some points.

Professional Reciprocity.—With regard to the state of things under which a person who is competent to practise on one side of the Tweed is not competent to practise on the other, parties who have possessed powers of qualification have been unwilling to surrender their rights; for instance, an authorization to practise in Edinburgh does not qualify for practice in Glasgow, and *vice versâ*; that is bringing the matter within a very narrow compass. Then a more general question might be, whether the authorization in Scotland should be valid in England, and *vice versâ*. Now, the question would be, I think, what is likely to be best for the public in that respect, whether it would be

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more advantageous to the public that the authorities in Scotland should qualify for Scotland only, those of England for England, and those of Ireland for Ireland, or whether the education of one should confer an equality of privilege in all three countries. I think it likely that it might be the most advantageous to the public that the examining body should qualify for their own division of the United Kingdom, and that a party passing from one into the other should be bound to belong to the corporation or examining body of that division of the kingdom. I think that might be required at all events. The advantage I should consider likely to follow from that is, that it would keep up emulation and competition among the examining bodies in each division of the kingdom. I think that they would each be inclined to do all in their power to raise and maintain the character of the profession, and of the examinations and qualifications in their respective divisions of the kingdom. Under the other arrangement, I mean that of allowing persons to choose their schools without reference to the division of the kingdom in which they mean to practise, there is danger of lowering the standard of education and the character of examinations by inducing students to resort where education and examination can be got through on the easiest and cheapest terms. I do not think the establishment of monopolies likely to produce excellence. The proper question in this case would be, what is most likely to benefit the public? That is the point of view in which I regard the matter. I think if you have an examining body in each country there is an inducement in each case to raise the character to the highest point; there is a competition between them. Supposing it should so happen that a person educated in Scotland should wish to come and practise in England, I think it would be fair that he should be allowed to do so upon attaching himself to the corporation which relates to that division of the profession in England. I know that great dissatisfaction has existed, because persons who have received the diploma of the University of Edinburgh could not practise as apothecaries in England without an examination by the Apothecaries' Society. I think that dissatisfaction is unreasonable, because it is the business of a university to educate physicians. The University of Edinburgh never, in former times, were anxious to make apothecaries; it is not the business of a university to do so. They have the higher office of granting degrees in medicine, laws, and so forth. Persons intending to practise as apothecaries in England have graduated in Edinburgh, thus being prepared to act in either character, according to circumstances. They wished to be exempted from that examination by the Society of Apothecaries which the law has established in England. General practitioner is not a legal term; and the Apothecaries' Act enables the Apothecaries' Company to examine persons who propose to practise as apothecaries.

Apothecary Apprenticeship.—It would be unreasonable that a man of medical eminence in Scotland should be interdicted from practising in England without going through an apprenticeship to an English apothecary. I do not know that the law requires that; at all events I am sure that several persons possessing the diploma of the University of Edinburgh have undergone an examination before the Apothecaries' Society, and I believe that there has been no difficulty in persons possessed of the diploma of the University of Edinburgh, if they think fit to practise as apothecaries, undergoing an examination by the Apothecaries' Society; but I do not pretend to know everything relating to the Society of Apothecaries. The Apothecaries' Act requires an apprenticeship of five years. I do not know that there is any exception; but the provision is nugatory, because it is a common practice for parties, though apprenticed, as required by the act, to pursue their studies in medical schools. The thing is constantly managed in the way I have mentioned. Our college has no privilege in the nature of a monopoly that I know of. Any person may practise as a surgeon who likes. There is no penalty upon a man for cutting off a leg, or doing any other surgical act. With respect to the apprenticeship clause, I would beg you to understand, that persons are apprenticed because the law requires it; but, though apprenticed, they are pursuing their studies in the London schools. The law does not require an apprenticeship in the house. They are apprenticed and the law is evaded, if that is an invasion of the law. I never heard of any difficulty being experienced by any individual having a diploma of the University of Edinburgh, and wishing to practise as an apothecary in England, in presenting himself, and undergoing an examination at Apothecaries' Hall; but other parties can, of course, tell you more about that than I can. In the first place, I think compulsory apprenticeship for five years is objectionable; I think that people should be left to their own choice, to be apprenticed or not, as they see fit, and for what term they consider fit. There are other things included in that act of which I do not entertain a favourable opinion. I think that the state of apprenticeship, when there are proper opportunities of information, is an advantageous mode of initiation into the profession. I think an apprenticeship, properly conducted and of proper length, is the best mode of initiating young men into the profession.

Scotch Degrees.—I should think that it would be very improper to allow a person in possession of a degree from the University of St. Andrew's, which I assume to be a place without a medical school and without an hospital, to practise his profession anywhere; and, if there is to be any law restraining parties from practising, that is a thing which ought to be prevented. I do not think that a St. Andrew's degree, conferred as it is at present, is a proper authority for a party to practise here or, indeed, anywhere. Under the terms of the bill, I consider that a person receiving a degree from St. Andrew's might be competent, so far as the legal power is concerned, to be appointed first physician to St. Bartholomew's Hospital, Guy's, or St. George's. There would not be any evidence, to my mind, to prove such a person would be a fit candidate for the office of surgeon or of general practitioner in the smallest poor-law unions in England. I think that it would not tend to the welfare of the poor to allow persons with such qualification, or rather want of proper qualification, to practise upon the poor. I can see no public advantage to be derived from giving such persons any power of practising in England. Though I would myself desire that all men should be educated to the same height as myself, I think that you cannot have all members of the profession educated to the same point, unless you make that a low point, and one that would not include a very long and elaborate education. If you have all on one level, it must be by depressing those who are higher to the level of those who are lower in public opinion and confidence. I should not consider it just to form an opinion of the medical schools of Scotland generally, from the University of St. Andrew's.

(To be continued.)

GOSSIP OF THE WEEK.

Naval Promotions.—Surgeon: Dr. George J. Fox, to the Bellerophon.—Assistant-Surgeons: Evan Evans and William Cuthane, to the Bellerophon; Dr. Robert Fulton, to the Spider.

Royal College of Surgeons.—Gentlemen admitted members on Friday, October 8:—C. Thompson, W. M. F. Chatterley, W. Garstang, C. H. Hitchen, D. Mackinder, J. R. Walker, A. Burton, R. D. Statter, and S. W. Stewart.

Apothecaries' Hall.—Gentlemen admitted members October 7: John Owen, John Pierce Bowling, and Walter Brown.

Mortality in London.—From the last official return of the Registrar General it appears that the number of deaths registered during the past week amounted to 589 males and 554 females, total 1143; the births registered in the same period amounted to 721 males and 783 females, total 1454. The weekly average derived from deaths of 1842-3-4-5-6, and corrected for increase of population, being 528 males and 518 females, total 1046. From the same report it appears that the number of deaths from scurvy during the past quarter has gradually decreased.

Diuretic Wine recommended for the Treatment of Dropsy, by Dr. Teissier, of Lyons.—The efficacy of the following prescription as a diuretic induces Dr. Teissier to advise its exhibition in cases of dropsy, when it is deemed prudent not to exhibit drastic purgatives, which generally occasion considerable irritation of the digestive organs:—℞. Vini albi, Oj.; pulveris scillæ, 3j—3ij.; Laudan. gutt. co. capit cochleare unum amplum bis die è cyatho potus saccharizati. The dose may be increased to three or four tablespoonfuls in the day; and the diuretic effect is observed usually in the second or third day.

The Yellow Fever in New Orleans.—There has been a rapid decrease in the deaths within the last few days, and there has been a similar favourable result in the number of new cases. The favourable change in the weather may, to a certain extent, account for this, but the principal cause is the want of material. The desertion of the city has so reduced the population that we do not believe it exceeds 70,000 or 80,000. After deducting those who were acclimated in previous years, the Creole population, the young children, and the negroes (all not subject to the disease), it would, we think, be a large estimate to say that there were, at the commencement of the epidemy, 30,000 unacclimated and subject to its attack. We regret that there has been no record kept of the number of the attacked, but we find our own estimate of 15,000 cases is generally considered too low; a more common opinion is 20,000, and some physicians rate it even higher than the latter. It will readily be seen from this, how greatly reduced is the present number of the unacclimated, and among that number are all those who, though not regularly acclimated, yet constitutionally are not susceptible to the disease; and all those who have thus far escaped have a much greater probability of not becoming subject to its attack. Hence the present decrease of the disease, and not from any decrease in the cause, which continues to exist in full force. If the absentees will avoid returning we shall look for a still further decrease in the number of deaths; but if, in spite of the warnings to the contrary, they will come into the city, we shall see the ravages of the disease again extended, probably to the former ratio. Allowing for omissions and errors in classing yellow-fever cases under other diseases, the whole number of deaths, thus far is probably about 3000.—*New Orleans Commercial Bulletin*, Sept. 14.

Obituary.—Died on the 4th inst., at his country residence, Tottenham, John Morgan, Esq. The deceased gentleman was a member of council of the Royal College of Surgeons, having been elected into that body on the death of Frederick Tyrrell, Esq.; he was also surgeon to Guy's Hospital and the Eye Infirmary attached to the hospital. The lamented deceased had contributed the following works to the notice of the profession, viz:—1. "A Treatise on Diseases of the Eye." 2. "An Essay on the Operation of Poisonous Agents upon the Living Body;" this work was published in conjunction with his colleague, Dr. Addison. 3. "An Essay on Tetanus," and several papers in the "Guy's Hospital Reports," and "Transactions of the Linnean Society," of which last institution he was a fellow.—On the 8th inst., at Lower Phillimore-place, Kensington, Alfred Hardwick, Esq., M.D., aged 59.—On the 5th inst., Thomas Powell, Esq., M.D., physician and governor to the Nottingham Lunatic Asylum, aged 60.—On the 10th inst., at Boulogne-sur-Mer, Dr. David Mignot, late of the island of Jamaica.

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No. 421. SUMMARY. Oct. 23.

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INTRODUCTORY LECTURE
READ TO
THE MEDICAL CLASSES
IN
KING'S COLLEGE, LONDON, Oct. 1, 1847.

By GEORGE BUDD, M.D., F.R.S.,
Professor of Medicine in King's College, London; and Fellow of Caius College, Cambridge.

It falls to my lot, as Dean of the Medical Department for the present year, to deliver the customary introductory lecture; and, in doing so, I shall address myself chiefly to those who now appear here for the first time, and who are about to commence their medical studies within these walls.

It is an important epoch in a man's life, when he first enters on the study of his profession. His previous education has had for its object the development and training of the various faculties with which he is gifted, and the storing of his mind with general knowledge. Now he is to begin to qualify himself for his particular calling; and on the manner in which he does this will mainly depend his future success. Much, indeed, will still be contingent on subsequent conduct, on health, and on the various accidents of life. The soil may be well prepared, and the seed well planted, but weeds may be suffered to spring up and choke the growing crops; or these may at any time, even when the fruits seem almost ready to be gathered, be blighted by a visitation beyond man's control: but so surely as a good tillage brings in due season an abundant harvest, so surely is an earnest application to the work in hand in the years of preparatory study rewarded by professional success in after life.

In many callings a man's social position is in a great measure independent of his own exertions; the individual is merged in the order; and worldly prosperity is ensured by the interest and support of friends. In the profession which you have chosen, a man is the maker of his own fortune: the position which he occupies in society, and the esteem in which he is held by his fellow-men, depend mainly on his character, and on the ability and skill which he is supposed to possess.

The business of medicine, in its various branches, is to minister to sickness and heal disease. Life has been well described as a perpetual conflict. The delicate machinery of the living body, endowed, though it be, with a power of self-adjustment which is among the most wonderful of its attributes, is liable to be deranged in a thousand ways: on the one hand, by agencies from that world without, in which we live and have our being; and, on the other, by the emotions and passions of the no less wonderful world within.

It behoves the physician, therefore, to study the physical constitution of man's body, and the relation which it bears to the material things around; and also the mind, of which this body is only the minister and servant.

The subject to which your attention will be first directed is anatomy; or, rather, anatomy and physiology.

Few studies are, in their nature, more interesting than this, which has for its object the curious and beautiful structures of which the frame of man is built up, and the wonderful phenomena of life.

It may be inferred, indeed, if we regard the intellectual pursuits of laymen, that other studies are more engaging. While language, and history, and mathematics, are often pursued for their own sakes, anatomy is seldom studied except by those who are preparing themselves for the profession of medicine. The reason of this is, that a knowledge of anatomy can only be acquired on the dead; and there is that in the decay of the dead body which is too repugnant to both mind and sense to be readily encountered, except at the urgent instance of positive duty.

This natural repugnance you will have to overcome: for it is only in the dissecting-room that you can really learn anatomy. You may, indeed, get a general knowledge of the structure of the body from lectures and books; but it will be only such a vague knowledge as you would gain of a foreign land from descriptions and plates. You may get a general idea of Jerusalem from the model of it now exhibiting in the Egyptian Hall, but the effect on your mind would be very different if you were to visit, and explore in person, the sacred city itself. No—it is only by opening up and unfolding the structures of the body with your own hands that you can impress the facts of anatomy strongly on your mind, and obtain that knowledge of the relative size and position of parts which is requisite to guide the knife of the surgeon in the hour of emergency; when the alternative of life or death may hang upon his skill. Deep will be your anguish, and bitter the reflections, with which you will look back on the days of neglected opportunity, if, in that hour, your knowledge should fail.

But, in your study of anatomy, you must extend your regard beyond the usual objects displayed in the dissecting-room. The knowledge of anatomy has, of late years, greatly extended. Formerly, little more of the structure of the body was known than could be discovered by the naked eye; but, by the use of the microscope, our powers of vision are immeasurably strengthened, and the eye penetrates to the very rudiments of organization. What the telescope has long been to the astronomer, the microscope now is to the anatomist.

When Galileo first turned the telescope to the heavens, he saw countless worlds before hidden from the sight of man: what till then had seemed a milky haze in the firmament was resolved into clusters of stars; the planets, that before were mere luminous points, appeared as disinct orbs, some of them (Jupiter for example), with satellites circling round them, offering to his astonished and delightful gaze, as it were, a miniature, like our modern orreries, of the system of planets, of which the earth is one, which a laborious calculation had shown to be ever revolving round the sun in the same direction as these satellites round their planets, and in similar orbits; but whose true relations, involved as we are in the system, can never be presented to our sight.

The microscope has revealed still greater wonders. At once it brought into view whole classes of animals never before seen by man; and, by its aid, the anatomist has at length made out the minute structure of almost all our organs and tissues. This latter knowledge has been acquired gradually and slowly, by the exercise of much sagacity and labour: for many of the structures in the human body are extremely intricate, the elements of which they are made up being at once minute and closely interwoven. I am proud to say that a considerable share of the recent accessions to our knowledge in this department has resulted from the labours of men who, but a few years ago, commenced, as you do to-day, their medical studies in this college.

A knowledge of minute structure is as essential to a full comprehension of disease as a knowledge of the broader features of anatomy is to the practice of surgery: for it is in the ultimate elements of structure that the most serious diseases originate. The large blood-vessels, for example, serve merely as channels to convey the nutrient blood. It is in their ultimate ramifications, invisible to the naked eye, in the very substance of the different tissues, that the process of nutrition takes place. It is from these minute vessels that the materials of the different secretions, and the materials to supply the waste of the body, are drawn; and it is to these vessels that the effete materials of the body, those materials that result from the waste of the tissues, are returned.

It is in the minute structures of the body that these incessant changes—these never-ceasing processes of waste and repair—take place; and it is through some fault in these processes that the most serious diseases are engendered.

Nothing is contributing so much at the present time to render our knowledge of morbid processes precise as the study of minute structure. Unless we know what the intimate structure of an organ is, what are the relations of its constituent parts, it is hopeless, in many cases, to attempt to discriminate, and to trace to their respective sources, the various changes that disease produces in it.

A few years ago the structure of the kidney was unknown; and, in consequence, the most common and most serious diseases of the organ were not understood. Changes of structure, quite different in kind, were confounded, or were considered as different stages of the same disease; and we had no accurate knowledge of the real nature of any of them, or of the way in which they originate.

Thanks to my distinguished colleague, Mr. Bowman, the intimate structure of the kidney has been laid open to us; and now, and as an immediate consequence of this discovery, all the confusion I have spoken of is clearing away.

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Not only can we now discriminate the morbid changes after the death of our patient, when the hidden recesses of the body are open to our scrutiny, but there is every reason to believe that, before long, we shall be able to distinguish them, with the same certainty and clearness, while the sick man is living; and that we shall apply our measures for his relief, not with an uncertain hand, and in the tentative manner of former times, but with the assurance and confidence of positive knowledge.

I have, perhaps, said enough to show you the importance of studying anatomy in this wide sense. In the most minute and most hidden parts of the body, as well as in its great and striking lineaments, you will find all formed by the highest wisdom—each part perfectly adapted to the purpose which it has to fulfil.

With the study of anatomy is inseparably connected that of physiology. It is impossible to regard the form and structure of a part, without speculating on its action and uses; and it is the business of physiology to teach us the action and uses of the several parts of the living machine.

Few studies take so wide a range. To acquire a perfect knowledge of human physiology, we must know the properties of the matter by which we are surrounded, and of which our material fabric is built up, and the laws which regulate almost all the forces in nature.

In the microcosm of man's body, gravitation, and heat, and light, and electricity, and the other subtle agencies of nature, all play their part. For the materials of which living beings are made are not only not exempt from the general laws of matter, but these laws are often enlisted, in the higher animals especially, in the service of the most important functions of the body.

A man may be familiar with the anatomy of the eye, and may know the chemical composition of its several humours; but, unless he has also some knowledge of the laws which govern the refraction of light, it is impossible that he can comprehend all the purposes of its beautiful and delicate mechanism.

He may have studied the structure of the larynx, or have carefully dissected the ear, but, unless he has some knowledge of the laws which regulate the production and propagation of sound, he cannot fully comprehend the uses of their several parts.

But the physiologist must not only consider the material fabric of man's body, and its subserviency to the general laws of matter: he must consider, also, his spiritual nature—the will, of which the hands are but to do the bidding; the reason, and the instincts and affections, of which the senses are but the ministers, and for which the organs of speech, with all their elaborate mechanical contrivance, serve but as the means of expression.

It is commonly imagined, and probably with some truth, that the study of anatomy disposes to scepticism and religious unbelief; that men who are long engaged in considering the mere mechanism of the human body, and "who frequently contemplate the processes of decay through which all its organs must pass after death, and the entire subjection of every part of the animal frame to the laws of chemistry, acquire habits of imagination unfavourable to the hope of an independent existence of the thinking principle, or of a renewed existence of the whole man." The study of physiology, in a comprehensive sense, tends to raise us above such a narrow and chilling view of man's destiny.

In contemplating the *living* man, we regard not only his wonderful material fabric, but we see him endowed with faculties which the laws of matter cannot explain—a creature of intelligence; with a moral sense judging of right and wrong; and with a desire and a hope of a future and higher existence: and we feel, to borrow the words of an eloquent writer, that "this inner man, the veiled God in the statue, is not of stone, like the statue itself." And since we find that in the material framework every part is perfectly adapted to its end, and to man's wants—the eye for sight, and the ear for hearing—and is perfectly suited both to the material things around, and to man's intellectual and moral nature; that, considered with reference to the world without and the world within, it is perfect and complete: we may naturally infer that the intellectual and moral powers and capacities which make up the inner man, which are, indeed, perfectly suited, like the bodily organs, to the material things around, but which are confessedly unsatisfied with their relations to them—that these faculties and powers have other and higher relations in a different sphere: that there is a *completeness*, and a wise purpose, in every faculty of the mind, as there is in every part of the bodily frame; and that the desire, therefore, of a future and higher existence has not been implanted in us in vain, and that the promise of it given to the heart will not be broken.

We are thus led to consider the body with all its attributes as, after all, but the mere tabernacle of the spirit, whose operations we may in some degree trace, but about whose end and destiny we know nothing more than has been imparted to us by direct revelation.

The science of physiology has, of late years, made great advances. Dependent, as it is, on other departments of science, it has followed their onward movement.

Many of the functions of living bodies have been elucidated by the recent discoveries in structural anatomy. The relations of the constituent parts of the different organs, thus revealed to us, have served to explain their action and uses.

Much respecting the action and uses of the several parts of man's body has also been made out by the study of *comparative* anatomy; by the study, that is, of the structure of other living beings, compared with that of man.

For, in looking through the scale of animated nature, we see some of the cardinal functions of life, which in man are involved one with another, and performed by complicated apparatus, becoming, as we descend the scale, more distinct and separate, and, so to speak, analyzed for our instruction; the instruments by which they are performed stripped of their refinements, one by one, until they appear in the greatest possible simplicity, with no other constituents than are absolutely essential to the work.

Thus, by surveying the animal kingdom from man, the highest and most complex member of it, to the lowest and most simple, the comparative anatomist has been able to extricate from among the various forms which their structures and organs assume, the fundamental elements of the various secreting glands and of the different organs of sense.

By extending his view to the vegetable kingdom, he sees the processes of absorption, assimilation, secretion, and reproduction by sexes, all actively going forward, and doing their wonderful work, without feeling or spontaneous motion—without the help, that is, of nervous system, or contractile fibre. And, when he sees in this kingdom these processes attaining their highest power and perfection; rearing up the beautiful structures of plants in endless variety—from the lofty pine to the lowly snow plant; distilling their elaborate juices; unfolding their flowers, and ripening their fruits—he must needs infer, that although, in the animal economy, these same processes have become modified and complicated by the introduction of nervous influence, and quickened by the help of contractile fibre, yet, that neither the nervous influence nor the contractile fibre is fundamental in the work.

But if anatomy, in this extended sense, be essential to a clear understanding of the functions of the living body, chemistry, another subject to which your attention will be at once directed, is still more so.

To convince you of this, it is perhaps enough for me to mention, that the great function of respiration—which is, as it were, the mainspring which keeps the machine at work, and which is so needful for the maintenance of all our higher faculties, that the breath is figuratively spoken of as the life—that this great function is, in its essence, nothing more than a chemical change: the union, in fact, of so much oxygen with the materials of the body; a simple process of *oxidation*, or combustion.

Chemical change is, indeed, a necessary condition for the manifestation of life. Modern research has led to the inference, that all the forces which are placed at an animal's disposal are effected by an expenditure of the materials of its body. The maintenance of the temperature of the body; the movements of the muscles; the operations, probably, of the mind—are all attended by an expenditure of the materials of which the body is composed. A constant interchange is thus taking place: the materials that have served their purpose pass out of the body as dead matter, and thence a continual need of food, that is, of fresh material, to supply the waste.

Between these two, and opposite processes—of waste and repair—studied in all their details, and intermediate steps, and contingent results, both healthy and morbid, wide is the scope for chemical investigation! Not respiration only, but digestion and secretion, and the thousand intermediate products into which the food passes after its reception into the body until it is cast out as dead matter, are so many objects for the chemist to elucidate. *The only clue to the intimate nature of these manifold changes of matter is to be found in chemical analysis.*

The changes themselves are among the most interesting phenomena of nature. How truly wonderful are the changes of form which the raw material undergoes when it is converted by assimilation into living tissue! How wonderful the new properties which are then communicated to it!

Take, for example, an egg, when newly laid. The white is a homogeneous fluid without form. The yolk has, it is true, a regular form, but if the slightest violence be done to the film in which it is enveloped, it flows into a shapeless mass. But place this egg, uninjured, under the breast of a hen, or, more simply still, in an oven artificially heated. Watch it from day to day, as closely as you will, and, to all outward appearance, nothing transpires. Weigh it, and you will find that nothing is added to its mass. On the contrary, its weight has slightly diminished. But within the thin shell which shuts it from the world without, the forces of life are quietly doing their mysterious work—aggregating the denser atoms into bone and cartilage; weaving the softer matters into skin, and muscle, and nerve, and other tissues; and at the end of three short weeks, what was at first an unconscious fluid mass, breaks its prison wall, and comes forth a living bird, with the form and structure peculiar to its kind, and, more than all, endowed with *sight* and other *senses*, and with *instinct* and *intelligence* to find its food, and make itself a home, in the new world into which it is born.

Destroy the bird's life at the moment of its birth, and submit its various tissues to chemical analysis, and you will find only those material elements which originally composed the egg.

There is no other department of physical science which, of late years, has had such a lively and stirring interest as chemistry: there is no other from which important and startling discoveries have broken upon us in such quick succession: and there is no branch of chemical investigation which has attracted more attention, or been cultivated with more success, than that which relates to the composition and functions of organized beings. Hardly a year has passed away without being marked by some signal addition to our knowledge; and, looking at what chemistry has already achieved in this department, it is impossible to doubt that it will go on giving us deeper and clearer insight into many of the phenomena of life, and that in so doing, not less than from its more obvious service in providing us with new remedies, or presenting us with those we already have in more convenient

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and efficient forms, that it will go on continually adding to our power of preventing and curing disease.

Another subject that will occupy your attention before your first year of study has expired, is botany. The connection of botany with medicine is obvious enough. It is from the vegetable kingdom that a large proportion of our most valuable remedies are derived, and, as you will by-and-by see, a study of the structure, and composition, and vital properties of plants, has thrown much light on the most important functions of animal life, and on the great scheme of animated nature.

The subjects of which I have yet spoken constitute the preliminary part of your professional education. Well grounded in these—in anatomy, and physiology, and chemistry, and botany—you will enter on the study for which all this knowledge is merely to prepare you: the study of diseases, and of the means by which they may be cured or relieved.

In this latter division of your studies there is only a part of your work that can be carried on within these walls. From lectures and from books, you can learn only the *principles* of medicine—the general results to which past experience has led. No description can portray all that is characteristic in the physiognomy of disease, and no extent of reading can give you the power of appreciating in practice, those minute differences on which the judgment of the practitioner must often be founded. For this, you require not only reading, but actual and personal observation. You must see what cannot be described, and you must educate your eye, and your ear, and your hand, to see, and hear, and feel, what the untutored senses could not discover; or, at least, could not rightly and promptly distinguish. You will have ample opportunities of doing this in the wards of the hospital, and I cannot too strongly exhort you to avail yourselves fully of them: not to go there once or twice a week, and make the wards a mere place of gossip and lounging; for the secret infirmities of our fellow-men are not to be opened up to the gaze of impertinence, or of idle curiosity; but to go there day by day, for the purpose of diligent study, watching the cases from first to last, and taking notes of them, or of many of the most instructive of them, with your own hands; and this you may do without any offence to the patients, if you do it considerately, and with good feeling, and, as I trust you will, in an earnest and truth-seeking spirit.

I have now given you a hasty sketch of the subjects that will henceforth mainly engage your attention. It would be a waste of words to say more of their importance, or to allude further to the various motives that should impel you to enter on the study of them with the earnestness of men commencing the serious business of life.

If you do enter on them in this spirit, and by persevering industry overcome the difficulties that will meet you at first, there is but little fear that your interest in them will flag as you proceed: for it is a law of our nature that the more we dwell on any subject really worthy of our thoughts, the more deeply do we become interested in it. If you look around you in the world, you will see numbers of gifted men devoting their lives to different subjects—one to history, another to language, a third to mathematics, a fourth to geology—none of them impelled by motives of worldly gain, but carried on by the interest which they feel in the subject. And if you inquire further, you will generally find that some accidental circumstance—the particular school or college to which he was sent, or the pursuits of his early associates—determined for each one what should be the chief occupation of his future life: that, at first, he had no particular bias for the subject, but that, as he went on, its interest grew upon him, until it ended by absorbing the principal part of his attention and time. I am quite sure that this increasing interest is felt by all who enter with earnestness on the study of medicine. As they proceed new objects of attraction are continually unfolded, new sources of interest continually present themselves; and it often happens that what was commenced as a toilsome work of duty, becomes at length a constant source of delight.

I trust, then, that some of you, by engaging earnestly in your present pursuits, will become imbued with this spirit; and that you will qualify yourselves, not only to enter on your profession well prepared to bear its heavy responsibilities, but also, like some of those who have gone before you, to take your rank in the world, as men of science, eager and able to carry forward the great work of advancement in the particular line you have chosen. For to borrow, and apply to medicine, the fervid words of one who is a bright ornament of this age and country: "There are secrets of Nature we would fain see revealed, while we yet live in the flesh—resources hidden in her fertile bosom for the well-being of man we would fain see opened up, for the use of the generation to which we belong."

But to acquire this happy frame of mind, which will invest your pursuits with a growing interest, or, indeed, to gain the social advantages which our profession offers, you must labour, labour long and earnestly, to overcome the difficulties which will everywhere meet you at first. The time has long gone by when success in any liberal profession, in this country, can be earned without toil. The man who would gain distinction in the church, or at the bar, must devote his whole energies to his profession for years together. It is the same with medicine. And let not any of us murmur at this condition. Our mission here is, by labour, to produce order out of disorder. The man who labours with his hands, who cultivates the fields, or makes roads, or builds houses, and by so doing helps to convert what was desolate and waste into a habitable and fruitful country: the man who labours with his head, and advances our knowledge, making clear and subservient to man's use, what was before obscure and unapplied: all who labour in the right direction, benefit their kind. Without the toil of man, the country would be uninhabitable: the undrained marshes would breed pestilences, and the soil would not yield a sufficient increase for man's use. Even the fruits of the earth only attain their full perfection under culture. The apple, the potato, the pine, the flowers with which our gardens are decked, are very different from their wild prototypes.

Let there be no murmur or repining, then, that you will meet with difficulties, and will have to encounter toil, in the particular path you have chosen. But, as I just now remarked, the trial is chiefly at the beginning. As you advance, your interest in the subject will increase, and the labour will be productive of pleasure. It has been truly said, by one of our most eloquent writers, that "all work of man is as the swimmer's: a waste ocean threatens to devour him; if he front it not bravely, it will keep its word. By incessant wise defiance of it, lusty rebuke and buffet of it, behold how it loyally supports him, bears him as its conqueror along. It is so with all things that man undertakes in this world."

But, in taking up your residence among us, you not only enter on new studies, but you contract fresh relations, which involve new duties.

The college, of which the act of matriculation makes you a member, though founded only a few years ago, is already a large establishment. More than a thousand students are receiving their education within its walls. About one-half of these, younger than yourselves, are engaged on the preliminary part of a liberal education. The others, about your own standing, are engaged, some in the department of general literature and science; some in the department of engineering; some in the study of medicine; some in that of divinity.

To all these, your fellow-students in the college, you are in a certain measure responsible for your conduct. For, in every society, the conduct of each individual member affects in some degree the character of the whole body. Of course, the smaller the community, the more important every individual member becomes with reference to it, and the more his good or ill conduct affects the rest. But, even in the largest communities, this reflected influence is felt. The character of a nation is affected by the frequency of crime among its people: and a single man, eminent for learning or virtue, may be its glory, and boast, and strength, for ages to come. In the society, then, into which you are now admitted, all your fellow-students have a direct personal interest in your character and conduct.

In every community this mutual dependence of its members renders it necessary, for the security and well-being of the whole, that some one should be intrusted with power to punish the offences of individual members against the community. In every civilized nation, whatever be its form of government, there must be a regular administration of justice, and an organized system of police. The society could not be held together without it. So it is in smaller communities. The business of a college like this cannot be carried on; the society cannot acquire any good reputation, or even continue to exist, without the preservation of order and discipline. The discipline is established on behalf of the whole body, and for their benefit. In educated communities, however, written laws and delegated authority are less needed to secure these ends. Through the conviction that the conduct of each affects the character of all, as members of the same body, an enlightened public opinion is formed, which, especially when it is founded on sound religion, is, itself, the most efficient means of restraint. In the colleges of our old universities, it is by this public opinion among the students themselves—which condemns, and resents as an injury to the whole community, any dishonourable or ungentlemanlike conduct in one of its members—it is by this public opinion, much more than by the acts of authority, that a high tone of feeling is maintained. And it is the consciousness of being constantly exposed to the judgment of this public opinion, and the necessity of regulating the conduct by its standard, that so deeply modifies the character and deportment of the men who are there educated, giving them (I speak, of course, of its general effect) the feelings and the habits of gentlemen.

To a large proportion of those who are educated in our old universities, this modification of character and deportment is of more importance, and has far more influence on their subsequent position in society and success in life, than the mere knowledge which they there acquire. This effect on character and deportment is, as I have already observed, mainly the result of an enlightened public opinion among the members of the society, and is independent of the particular subjects of study. In our two old universities the subjects of study are very different. In one, history and literature are especially cultivated; and, in the other, physical science. The students come away from their respective universities with their minds very differently stored; but the effect of the collegiate life, with its wholesome discipline, on their character and conduct, has been just the same. So it will be, we trust, with the men educated in the various departments of this college. One will leave the college with a knowledge of the dead languages and of the past history of Greece and Rome; another, with a knowledge of the exact sciences; another, with a knowledge of medicine, and of the sciences subsidiary to it; another, with a knowledge of divinity: but all will have had their characters more or less modified in the way I have explained; and, feeling this, they will quit the college to pursue their different paths in life, still in some degree connected by a feeling of fraternity, and with a respect for each other, as men of well-disciplined and cultivated minds.

It is, I think, impossible to over-estimate the influence which the old universities, by their well-ordered collegiate life, have had in forming the character of the English gentry. And deeply impressed with the importance of this influence, it gives me great satisfaction to remark

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that the council of this college are increasing the accommodation for the residence of medical students; that the collegiate life and discipline, as applied to medical students, which was first established here, has met with general favour; and that other medical schools in the metropolis are following, or are preparing to follow, as far as their means will allow them, the example which this college has set. Nothing will tend so much as the extension and development of this system to raise the character of the medical practitioner. There has been for some years past a cry throughout the country for medical reform; and there can be no doubt that some of the medical institutions of the country require remodelling. But it is not by legislative enactments for the suppression of quackery—and it is not by giving to one standard of education the social rank and privileges of a higher, and by thus repressing a generous emulation and discouraging high attainments among us—that the character or condition of the profession can be raised: but it is by improving, generally, the character of medical education; by making the course of preparatory study comprehensive and long; and, more than all, by extending more widely among our students the advantages of a collegigte life.

I have, perhaps, said enough to induce you, not only to enter with earnestness on the study of your profession, but also, from the first, to render a willing obedience to the regulations and discipline to which you will here be subject. Whatever any of you may think of the restraint which this imposes on you now, the time will come when you will perceive and enjoy the advantages of it. This institution is founded and organized for your benefit, and to benefit society through you. Its object is to qualify you, not only for the particular duties of your calling, but also, as gentlemen and Christians, to take a place in society becoming the members of a liberal profession.

It remains, then, gentlemen, for you to do your part—to see that in the important stage of life on which you are now entering you are not wanting to yourselves.

ON THE PHYSICAL PHENOMENA OF LIVING BODIES.

By Professor MATTEUCCI, of Pisa.

PART XVI.

VOCAL APPARATUS—VOICE.

(Continued from vol. xvi., p. 625.)

We have, in the first place, to occupy ourselves with a brief examination of the vocal organ of man and the animals. Every one knows that the vocal organ is situate in a certain portion of the trachea, or windpipe. The actual position of the vocal organ is pointed out with greater precision still by the circumstance that openings made into the trachea below the larynx are immediately attended with extinction of voice, whereas no such result follows upon incisions made above the larynx; and that in the case of openings below the larynx the voice is restored the moment the aperture is closed with the finger, &c. In birds the vocal organ is situated somewhat lower than in the mammalia, viz., at the bifurcation of the trachea. Accordingly, though the head of a bird be cut off, it is still possible to produce sounds from the trunk by compression of the thorax.

We will confine ourselves here to give a description of the vocal organ of man, this being the most complicated and the most perfect.

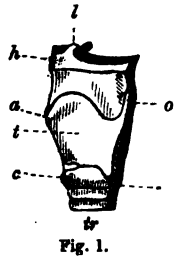

Fig. 1.

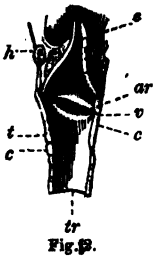

Fig. 2.

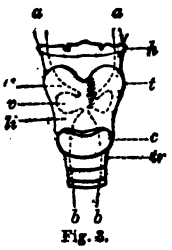

Fig. 3.

Fig. 1. Larynx (lateral view):—h, hyoid bone; l, body of the hyoid bone to which the base of the tongue is attached; t, thyroid cartilage; a, protuberance formed in front by the thyroid cartilage: the thyroid cartilage is united by a membrane to the hyoïd bone; c, cricoid cartilage; tr, trachea; o, side of the larynx adjoining the œsophagus.

Fig. 2. Vertical section of the larynx:—h, hyoïd bone; t, thyroid cartilage; c, cricoid cartilage; ar, arytenoid cartilage; v, ventricle of the glottis, formed by the space left open between the chordæ vocales and the upper ligaments of the glottis; e, epiglottis; tr, trachea.

Fig. 3. Full or front view of the larynx:—The contour of the inner side or wall is indicated by the lines a, a, b, b; li, lower ligaments of the glottis or chordæ vocales; ls, upper ligaments. The other parts are indicated by the same letters as in the two first figures.

The trachea is a species of tube formed of cartilaginous rings, separated from one another by other rings of membranous and flexible texture. The lower extremity of this tube is divided into two branches, which ramify subsequently in the parenchyma of the lungs in the manner of the branches of a tree. The upper part of this tube, which opens in the cavity of the mouth, is terminated by the larynx, which latter is the actual organ of the voice; the larynx may be looked upon as a continuation of the trachea, with this difference, however, that that portion of the latter which constitutes it is larger than the rest, and is attached to the hyoid bone. The larynx is composed of four cartilages, viz., the *cricoid*, *thyroid*, and the two *arytenoid* cartilages. They are respectively of very different form, are joined to one another, and jointly affixed to the upper ring of the trachea. Attached to these cartilages are several muscles which, by their contraction, make the larynx, or some of its component cartilages, move. The mucous membrane which decks the interior of the larynx forms, towards its centre, two great lateral folds, directed transversely to the organ, and which look like a button-hole: these folds are termed *chordæ vocales*, or *lower ligaments of the glottis*. Above the chordæ vocales are found two other folds analogous to the former, and which are termed *upper ligaments of the glottis*. The cavities between the upper and lower ligaments are called *ventricles of the larynx*. The species of chink or cleft between the two chordæ vocales is termed *glottis*. Lastly, above this chink we observe a species of tongue or lingel of fibro-cartilaginous texture, which is, on the one hand, susceptible of depression upon the glottis, as happens during deglutition, and may, on the other hand, be raised obliquely, as is the case during expiration—this organ is called the *epiglottis*. The length of the glottis is from twenty-five to thirty millimètres: the distance between the two edges or lips of the glottis is exceedingly small in the fore part, and from seven to eight millimètres in the posterior part; these lips are, moreover, susceptible of mutual approach to the point of actual contact. The depth of the ventricles is from twenty-five to thirty millimètres, and their greatest possible elevation fifteen millimètres. The upper sides or edges of the ventricles lie so close to one another as to form in some sort a species of second glottis, placed at from about fifteen to eighteen millimètres above the actual glottis. The air expelled from the lungs, without any extraordinary effort, traverses the larynx readily and without producing the slightest sound. A simple experiment, known since the days of Galen, suffices to demonstrate that the contraction of the muscles of the larynx is indispensable to articulate sounds. This experiment consists in wounding the laryngean nerves, or operating the total section of them on both sides of the trachea: this operation paralyses the larynx and deprives the animal operated upon entirely of the faculty of producing sounds. Another experiment, which will serve to point out with greater precision still the *part* of the vocal organ *most essential* to the production of the voice, consists in this: remove the upper ligaments of the glottis, you will find that the voice persists, though somewhat enfeebled; but remove or wound the lower ligaments (chordæ vocales), and the voice will be completely destroyed. Müller asserts that it is easy to produce sounds with the larynx of a human corpse simply by blowing air through the trachea, provided the lower ligaments of the glottis be in a state of tension, contracting thus the glottis. According to this learned physiologist, the experiment will still succeed, even though all the parts situated above the glottis (the epiglottis, upper ligaments, and ventricles) be removed. The production of sound will persist, provided the vocal chords remain, and the chink between them be narrow. Magendie states that, if the glottis be laid bare in living animals, the vocal chords may be seen vibrating when the animal emits cries. A certain experiment of Longet's will demonstrate most clearly the part which the vocal chords perform in the production of the voice. This experiment may be made as follows:—The larynx of a rabbit is laid bare; upon pinching the animal in any part of the body it will emit sharp and dolorous cries, and at the same time the crico-thyroidean muscles will be seen to contract; but, if the section of the nerves passing to these muscles be now effected, the latter will of course lose the faculty of contracting, and no further cries will proceed from the animal; upon pinching it severely a few deep and hoarse sounds only will be heard. Hence it is evident that the organ of the voice is constituted by the glottis; that the trachea is like the tube of the bellows of an organ; and that the upper part of the larynx and all the parts situated above the epiglottis, including the cavities of the mouth and nose, constitute the upper pipe of this instrument, and that they simply serve to modify the sound.

The vocal chords are formed of that elastic tissue so remarkable for its yellow colour and the arrangement of its fibres, and also from the circumstance of its forming a great many of the ligaments and the median membrane of the arteries. This tissue is decidedly the most elastic of all the tissues of the human body. The movements of the cartilaginous portions of the larynx cause to vary the degree of tension of the vocal chords, and the transverse and oblique diameter of the glottis. Generally speaking, the glottis contracts during the emission of sounds. The vocal chords (whether considered as chords or as stretched membranes), attached on one side alone, have the faculty to emit sounds when agitated by a column of air; and these sounds must of necessity vary with the state of tension and the length of the chords, and the force of the current of air. A current of air, traversing with a certain rapidity an orifice of variable diameter, may also produce different sounds, independently of the elasticity of the lips of the orifice: of this we have an instance in wind instruments. The pipe or tunnel above the glottis (composed of the ventricles, the pharynx, and the cavity of the mouth) may change the intensity and even the tune of the sound originating in the glottis. In fine, we may look upon the larynx as a cylindrical cavity, having two orifices in the centre of its bases. Assuming a current of air to traverse this cavity with different degrees of velocity, and assuming the diameter of the orifices to be variable, and the lips of these orifices endowed with variable tension to be elastic, it will be readily conceived how this apparatus can produce a very great number of different sounds.

These considerations explain how it is that the vocal apparatus of man and of animals has

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been compared by some to a wind instrument; by others to a string instrument; by others, again, to a reed pipe instrument; and finally, by Savart to a bird-call or quail-pipe. These various theories on the nature of the vocal apparatus are by no means so opposed to one another as their authors considered them.

Every part of the larynx may be removed without destroying the vocal faculty, provided the vocal chords be left intact; these latter are, then, the indispensable element of the apparatus; and if we take into consideration that they are susceptible of a more or less considerable degree of tension, varying thereby the size of the aperture between their edges, we are necessarily led to look upon this essential part of the vocal organ as a membranous reed pipe of peculiar construction. The rest of the larynx and the whole of the upper cavity of the mouth form the pipe or tube placed over the reed pipe, the lower part of the trachea constituting the tube leading to the bellows.

The correctness of this view has been demonstrated by Weber's and, more particularly, by Müller's observations and experiments; the examination of which we must defer till next week.

ORIGINAL CONTRIBUTIONS.

THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

By GEORGE CORFE (Author of "A Popular Treatise on the Kidney," &c.), of the Middlesex Hospital.

[Illustrated by Portraits of Cases.]

(Continued prom p. 650, vol. xvi.)

But to return. Just as we were growing weary with this line of practice, and yet not being able to lay the disease at the door of any other organ than at the heart or brain, the man exhibited to his physician, at the usual visit, a joint of a "tænia-lata," and, on being interrogated, he said that he remembered passing similar pieces several months ago; that he "took physic" for it, and thought he had got rid of them all. Soon after this, however, be it observed, the before-mentioned train of nervous symptoms set in. Acting, therefore, upon the extraordinary effect of the emetic on the country girl, this man was ordered one, and in the course of the following day he passed two or three dozen detached pieces and joints of a tænia lata. He then took the oils of turpentine and castor combined, but they failed to bring away many more. At length the pomegranate was resorted to by Dr. Crawford, when several joints passed, and I believe the head amongst them. The man rapidly recovered from every one of his nervous feelings, and left the institution perfectly convalescent.

Having thus briefly noticed another of the sources of irritation to the cerebro-spinal system, I must just glance at a third cause. But it should be borne in mind that one and all of these causes produce symptoms that are so analogous to those arising from disease within the cranium, that even a discriminating and judicious practitioner will sometimes be perplexed as to the line of practice he ought to pursue. Yet is there one point most worthy of attention here. It rarely can do harm to your patient if you freely purge him with calomel, colocynth, &c. &c., shave the head, and keep open a blister on the vertex. But, if you set out by taking, unnecessarily, twenty or thirty ounces of blood from him, it is impossible to say how serious the consequences may be. Wherever there is doubt as to the propriety of depletion, it is wise to let the patient have the benefit of that doubt, and to postpone the severest means until we see that brisk and repeated purgation, and the unloading of a gorged liver and gall-bladder, have produced no real improvement.

I believe it has been stated, upon the very best evidence, that there is no greater poison which is slowly consumed by the indigent poor in this metropolis and other large towns than that of three-and-sixpenny tea, so called. I have been informed by a merchant, who is versed in these matters, that the cheap teas of London are not worthy the name of teas at all;(a) indeed, we need not wonder at such an assertion after we have read the able exposition of the frauds practised by the Chinese which Mr. Warrington laid before the public in the year 1844. It will be found in the first and second numbers of the fourth volume of "The Pharmaceutical Journal." This gentleman there states that the Chinese turn a green into a black tea, and *vice versâ*; that "all the green teas that are imported into this country are faced, or covered superficially, with a powder consisting of either ferrocyanide of iron, or of sulphate of lime, previously stained with this prussian blue; and that such teas are never consumed in the country, but are invariably exported, of course, mainly to these islands."

Mr. Davis, in his work on the Chinese, was eyewitness to these frauds: old black tea leaves were made to assume the fine bloom of green teas through the means of prussian blue.(b)

The following observation occurs in "M'Culloch's Dictionary":—"Blue is a favourite colour with the Chinese, and in 1810-11 the imports of prussian blue into Canton, from England, amounted to 253,200 pounds. But for some years past the Chinese have not imported a single pound weight. The cause of the cessation of the traffic deserves to be mentioned. A common Chinese sailor, who came to England in an East Indiaman, having frequented a manufactory where the drug was prepared, learned the art of making it, and on his return to China he established a similar manufactory there, with such success that the whole empire is now supplied with native prussian blue."(c)

It is only two or three weeks since one of the many instances of the evil effects of bad tea was witnessed in a case of hemiplegia in these wards. By the evil effects of tea, it is not meant that this delightful beverage is the immediate cause of producing any disease analogous to paralysis, but this we may assert, that the indiscriminate use of the adulterated, cheap, and noxious article, sold to the poor at 3s. 6d. per pound, called tea, is the fruitful source of dyspepsia, flatulence, palpitation, loss of appetite, constipation, piles, and a distressing train of biliary derangement; and thus is it the proximate cause of many painful and insidious disorders of the nervous system.

A large class of patients (females especially) attend here, some as out-patients; others, too ill for out-door relief, seek admission into the hospital, labouring under the following train of symptoms:—They are suddenly seized with violent and excruciating pain over the head, perhaps over one eye. The feeling, as they describe it, is as though some one had given them a severe blow on the head. They do not lose consciousness, but they reel and are afraid they shall fall down. This attack of pain is followed by ringing or buzzing in the ears, slight nausea, copious eructations of sour wind, flushing in the face and neck, succeeded by clammy perspirations, a pain or numbness shooting down the arm and leg, palpitation, and high-coloured urine, with costive bowels. It is in this class of diseases that the most astonishing relief has been obtained from the use of hydrochlorate of ammonia internally, in the proportion of ten grains three times a day, in any pleasant bitter infusion. One poor woman, aged thirty-six, from the suburbs of London, had been unable to gain a livelihood for two years, in consequence of the severity and frequency of these attacks, so that she was not only incapacitated for work, but even dreaded that she should be shortly fit for a lunatic asylum. However, by God's rich blessing upon the means employed, and by total abstinence from tea—though she had never heard it hinted that drinking her tea morning and evening was the offending cause of this prolonged attack—she declared that since she had left it off she had not enjoyed such good health for many years. Under the use of the hydrochlorate, she entirely lost the attacks of pain, and returned to her home and work quite well.

But it is more particularly in allusion to the hemiplegic symptoms which I have witnessed, from a free indulgence in bad tea, that I am induced to notice the subject here.

The most recent case that I observed occurred two or three weeks ago. A female, aged forty, married, with a family, was attacked, for several weeks prior to her admission, with numbness down both arms and legs—severe occasionally, in one leg, whilst there was temporary ease in the other. She dragged her *left* leg after her. There were twitchings and some loss of sensation in the face on the *right* side. Her intellects were perfect, but she was nervous and low-spirited to a most painful degree, scarcely able to describe her symptoms without crying. I am well aware that all these derangements may be produced by indulgence in ardent spirits, and that some may argue that, when they get into an hospital, they are deprived of this stimulus, and thus lose their disorder. But this argument will not bear upon the far greater number of those cases which occur amongst the out-patients, as these persons have still the means of obtaining their drams; and yet, upon their abandoning tea, they lose these distressing symptoms. However, this patient was strictly prohibited from drinking tea; and when she found herself rapidly gaining strength, appetite, spirits, and vigorous health, she declared that it should be a long time before ever she would touch tea again, as she could not have supposed she should feel so well as she had done since giving up that beverage.

INTOXICATION.

A patient is brought into the hospital, perhaps on a policeman's stretcher, or he is carried in by friends, who state that he was picked up in the streets, senseless. His pupils are dilated, immoveable; his breathing is deep, and low, and heavy, the expiration being short and abrupt, whilst the inspiration is a prolonged deep sigh, with more or less stertor; pulse is full and strong. The suspicion arises that the man has sanguineous effusion into one or both ventricles of the brain. But it must be again acknowledged that, of all the perplexing, deceitful, and varying symptoms which diseases occasionally put on, those of cerebral lesions or mere cerebral disturbance are, of all others, the most difficult to decide upon. We have admitted cases into the hospital in the dead of the night, brought here by policemen, who have found the patient lying senseless, or he has been seen to fall senseless on the pavement: we have bled, blistered, leeched, and purged; shaved the head, and given turpentine enemas, but all to no purpose; insensibility has remained; when, to our surprise, in twelve hours afterwards we have gone to visit our patient, we have found him perfectly sensible and tolerably well, not more surprised at the loss of a head of hair than we have been at the sudden revival of our supposed case of apoplexy. Whilst, on the other hand, I have admitted a case as one of "dead drunk," perfectly inanimate, and have, for the sake of precaution, sent him into the ward to bed, and yet have found it to prove an instance of apoplexy. I have, however, learned a valuable lesson by even these difficulties: for in every instance of late years, when a case of complete insensibility is admitted, I have requested the house-surgeon to empty, and then wash out, the stomach by means of the pump; and, if it has been from drunkenness, the "sot" has shown his character up before we have finished this operation; and if it has been one of apoplexy, it has done no harm, and it has proved that it was more than intoxication, as no alcoholic fetor has been detected in the contents of the stomach.

A ludicrous instance, amongst many, occurred of this kind a few years ago. A female was brought into the hospital at midnight by the

(a) Consult "Essay on Cultivation, &c., of Tea in Java," translated from the Dutch by Thos. Horsfield, M.D., F.R.S.

(b) "Davis's Chinese," vol. ii., p. 468.

(c) "Proceedings of the Chemical Society."

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police; she was found senseless in the street. She breathed heavily, and we could get no rational answer to all our interrogations, pinchings, or attempts to rouse her. On looking at the pupils, we found one somewhat dilated, and the other, I think the left, contracted to a pinhole in size. We readily, therefore, judged it to be "sanguineous effusion into the thalamus optici of the opposite side," and, therefore, requested the house-surgeon would bleed her from the arm; this, however, failed, as no blood could be obtained from a set of small deep-seated veins; the jugular, I believe, was also ineffectually opened, and at last the right temporal artery, when eight ounces of blood were taken away. The head was shaved; she was made to swallow, with some difficulty, a dose of calomel and black draught, and a turpentine enema was afterwards administered. We all retired to bed after talking over the features of this striking case of apoplexy. On the arrival of the physician for the week (Dr. Watson), I related to that gentleman the circumstance of having admitted a severe case of apoplexy, and, as I had just previously made my daily visits round the wards, and had found her still insensible, I was perfectly unprepared for the scene that followed. That gentleman went up to the bed of the patient, and, without saying anything to her, merely lifted up the closed eyelids, and remarked to the pupils around him that the iris was very contracted, whilst another gentleman, a physician, exclaimed, "C'est un homme!" and the patient, in the most composed and easy manner possible, calmly said, "I haven't had the sight of that eye, Sir, these twenty years," and, as if awaking out of a deep sleep, began to feel herself, and, finding out her situation, became quite communicative, to the great amusement of the gentlemen present, but to my utter astonishment. She informed us that she was "a professional singer," that is, she sung ballads in the streets; and, "having been treated to liquor, she took more than she was able to bear," &c. It should be observed that there was an old adherent iris on one side, which had helped to fix it in our minds as a case of apoplexy.

I am frequently called by the house-surgeon to cases of apparent concussion; a blow has been given over some part of the head and face, the patient has reeled and fallen; no evidence can probably be obtained of previous intoxication, only that the parties had been drinking and quarrelling. The man or woman, as the case may be, looks apoplectic, and is admitted under the strongest suspicion that recent effusion has taken place in the brain. The wound is bleeding freely; it is sponged, probed, brought together (perhaps by sutures, if jagged), and strapping; yet he sits unconscious. No stomach-pump is used, and he is sent to the accident ward. The following morning we hear, to our surprise, that the patient is up, dressed, and insists upon going out to his work; and attends, as an out-patient, for some days afterwards, until the wound is healed.

Yet, again, the very reverse of these facts is constantly occurring in the surgical department of this hospital. A man, a few days ago only, fell from the seventh or eighth prong of a ladder, and struck his eyebrow on the pavement. When he presented himself there was a small wound, with ecchymosis over the eye, but his manner did not raise the slightest suspicion of intoxication, of concussion, or of cerebral distress. Indeed, so trivial were the symptoms, that the house-surgeon most reasonably doubted on the necessity of detaining him in the hospital. However, as a fellow-workman came forward and stated that the man had been stunned for a few minutes after the fall, it was deemed advisable to send him into the ward. In twenty-four hours I was summoned by the house-surgeon to see this man, who had been suddenly deprived of the power of speech, and in twenty-four hours more he was dead. The blow had produced "fracture of the cribriform plate of the ethmoidal bone, and the adjoining parts of the frontal bones; the fracture extended backwards through the anterior part of the sphenoid to its body. On reflecting the skin covering the root of the nose, the ossa nasi were found broken across at the upper part; and on pushing the nose upwards, the movement was communicated through the septum to the fractured cribriform plate." There was, also, acute arachnitis, the result of these injuries.

The above account of the *post-mortem* appearances of this case is taken from a valuable and practically-useful paper published by our late intelligent house-surgeon, Mr. Rogers. This gentleman has had many opportunities of verifying the above observations on the difficulties that attend the accurate diagnosis of cerebral lesion, from mere cerebral excitement and disturbance. There is a group of four cases related in the article alluded to, of fracture of the nasal bones in the short space of three months, three of which were fatal; and in one of these three Mr. Rogers observes, that the apparent injury done to the nose was so slight as to escape detection during life; whilst in the other case, the only one which survived the injury, the accident was followed by no symptoms indicative of internal injury; and, although the bony supports of the nose were so extensively fractured, yet was there but little displacement.

In all cases of intoxication the mental faculties become roused before the operation of thoroughly washing out the stomach by the pump is concluded; whilst, on the other hand, it may be said, the reverse is ordinarily the case in cerebral lesions, or in mere concussions of the brain. Before we allow the tube to be withdrawn from the stomach, in cases of inebriety, we usually inject three ounces of the dilute acetate of ammonia draught, which has an extraordinary effect—sometimes in "sobering" the head, and calming the stomach too.

Dram-drinkers and females of an anæmic constitution are particularly liable to sudden attacks of SYNCOPE from hemorrhage into the stomach: in the former class of persons this effusion is the result of a congested state of the venous trunks of the stomach and duodenum; but in the latter class it is not always so, but rather the result of some real disease, as ulceration of the coats of the stomach in its arch. Active purgation by calomel, colocynth, and black draught is the safest mode of treatment in the first class of patients; whilst turpentine, steel, and a due supply of nourishing animal broths are most judicious in the anæmic class of females.

With regard to FACIAL PARALYSIS, little need be said, as the disease speaks for itself. But this only I am anxious to notice, that of all the recent discoveries in the practice of medicine, the application of the lin. crot. Tigli is a most efficacious remedy, applied with a camel's-hair brush along the course of the seventh nerve, as it emerges from the skull. The pustular eruption and irritation which it produces are rapid, evanescent, and readily controlled. The effect has been surprising in some instances, but, at the same time, active purgation has been kept up by calomel and drastic purgatives. This treatment was first suggested to my mind by witnessing the astonishing influence of this counter-irritation, so admirably followed out in other diseases by our talented assistant-physician, Dr. R. G. Latham.

I have briefly alluded elsewhere to the practice which we invariably adopt at this hospital in the administration of the stomach-pump to all cases of insensibility, when this symptom depends upon causes of an equivocal nature. The evidence, in such instances, which we derive from those who bring the patient, is oftentimes of a most perplexing and negative character, so that it is difficult to determine whether the senseless condition of the person depends upon sanguineous apoplexy, narcotic poisoning, urea in the circulation, hysteria, or intoxication. I am aware that it is much easier to recommend the employment of the stomach-pump than to administer it to persons who are sometimes in the highest state of excitement bordering upon maniacal fury. I am anxious, therefore, to describe the mode in which we employ this remedial agent in such cases, for until I arrived at this practical method, we were often obliged to abandon the use of the pump, in consequence of the difficulties which the struggles and powerful action of the patient's body produced; and I may here remark that, on one occasion, the gag was forced from the mouth, and the man bit the tube in twain a few inches from the cylinder, leaving the remainder, nearly two feet in length, in his œsophagus and stomach, when, by the greatest manual force, I wrenched open his jaws and plunged my fingers down his throat, and was fortunate enough to seize the divided end at the points of my finger and thumb just as it had slipped within the bag of the pharynx. Since that period I adopt the following method:—The patient is seated in a strong wooden chair, another chair is placed behind him, and an attendant is ordered to sit in it, and, taking the arms of the patient, he pinions them by holding the wrists firmly against the back of the chair. This method serves to fasten the trunk securely in the chair; the legs are then swung in a round towel, which is passed round the ankles by a noose, and, a second chair being placed, so that the back of it shall be towards the legs of the patient, another attendant is placed in it; he carries the towel over the back of the chair, and sits upon it, and thus the legs are at right angles with the trunk, and consequently they are almost powerless. If, however, the man offers to flex the knees, the ankles are instantly raised higher, and the power of the flexors of the thigh is thereby overcome in an instant. By this position, it will be observed, the patient is deprived of all muscular power, and the only fixed point on which his body rests is the ischiadic tubera. I am satisfied that the stomach-tube may not only be introduced with comparative ease, but that the operation of the pump is perfectly harmless, when judiciously administered, upon a refractory patient thus immovably fixed.

When I adverted to the physiognomical characters of cerebral lesion, I observed that insensibility, closed eyes, and unequal irides were usually amongst the prominent features in this department of pathology; but we have just been describing a series of cases in which the symptoms so closely resemble each other, that unless a few practical hints are now made, in order to illustrate the actual differences which exist between cerebral disease in its varied symptoms, and cerebral asphyxia in its usual appearances, I am afraid that the student may not be enabled to discriminate the pathological features peculiar to the two maladies.

Cerebral asphyxia, whether it arise from narcotism by the presence of opium, urea, or alcohol in the system, invariably presents the following characteristic features, viz.—stupor, closed eyes, equal irides, but *no* paralysis. In narcotic poisoning by laudanum, the stupor is not always so complete, but that the individual may be somewhat roused by means of flagellation, pinching, &c., but especially by the agency of the electro-galvanic battery; the eyes are closed, it is true, but the irides are minutely contracted, the cornea is dull and no longer glistening, the whole organ is void of expression, and the countenance presents a dingy, livid appearance: the respirations are slow, shallow, and spasmodically performed, whilst the heart is also laboured, and the pulse slow and unequal.

On the other hand, the narcotism produced by urea in the circulation is of the most obstinate character; no agents are capable of rousing the patient, even momentarily, out of it; though the eyes are closed, yet the pupils and cornea are natural in appearance, however the iris, towards the close of the disease, may become contracted. The countenance does not present the features of a person under the influence of opium, but it is scarcely altered, except in its partaking of an anæmic cast. The respirations are equal, free, and regular, but somewhat stertorous; the pulse is above the natural standard, and there may be some œdema of the body.

But when we examine the physiognomy of a man, insensible from alcohol, we notice the complete stupor, it is true, but the closed eyes

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are no sooner raised than we detect red and the ferrety conjunctiva, the fiery cornea, the dilated irides, and we feel the rapid full pulse, and we may smell the strong fumes of alcohol in his breath.

These circumstances are of the highest practical utility, and ought to be carefully borne in view; though, in private, the practitioner is more or less acquainted with some circumstantial evidence by which he can judge of the nature of such equivocal symptoms, as he has, in all probability, been in attendance upon the family for years; but the hospital practitioner rarely possesses such means of arriving at a correct diagnosis of these cases. The patients are brought here in a state of insensibility; the friends are unknown and absent; the attendants, who accompany them, are unable to afford us any assistance in forming a diagnosis, and, too frequently, they think they have done enough if they have succeeded in depositing the narcotized patient in our care, and they accordingly decamp soon afterwards. Thus we have to watch, to discriminate, to weigh well, and to ponder over the varied phases of symptoms which such cases present; but the effect of this arduous line of practice is to tutor our minds to seize the most prominent yet peculiar symptoms of each of these cerebral diseases, or cerebral alienations.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF MEDICINE.

Meeting of Oct. 6; M. Blondin in the Chair.

YELLOW FEVER AT NEW ORLEANS.—M. Girardin reminded the academy that some months since a letter, written by the French Consul at New Orleans, stated that the yellow fever was gradually becoming less and less frequent, and that sanguine hopes might be entertained of the total disappearance of the scourge. From recent communications it seemed that this conclusion had been somewhat too hasty. Since the month of August yellow fever had shown itself in New Orleans with more violence than ever, and was attended with a frightful mortality. The invasion of the disorder was generally referred to the migration of crowds of North Americans, brought to Louisiana by the Mexican war.

LITHOTRITY AND LITHOTOMY.—(ADJOURNED DEBATE.)

M. Civiale, resuming the debate, endeavoured, in a written communication, to prove that a relapse of calculous affections, or, to speak more correctly, the reproduction of the stone, was more frequently observed after cystotomy than after crushing. It was true that the diathesis exercised its influence upon all classes of patients indiscriminately, whether operated by the one or by the other method; but a calculous diathesis was only one of the causes of a relapse. It would not be fair merely to examine the question in this point of view, and not to recollect that cystotomy exposed the surgeon far more than lithotrity to abandon in the bladder entire culculi or fragments of concretions. The perfection to which lithontriptic instruments had been brought, the possibility of obtaining by frequent exploration an almost complete insensibility of the urethra and bladder, were guarantees which ensured a favourable result, and which explained the proposition, at first startling, that relapse was more frequent after cutting than after lithotrity.

M. Blandin could not admit of the correctness of the arguments used by M. Civiale. The introduction of the finger after the removal of the stone in cystotomy was a mode of exploration much more satisfactory than that which was performed with any steel instrument whatever.

HOPITAL SAINT LOUIS.

PORRIGO SCUTULATA—HERPES DECALVANS.
CLINICAL LECTURE BY M. CAZENAVE.

Porrigo Scutulata.—This disorder is a contagious eruption, characterized by the appearance upon the scalp of pustules developed on desquamating patches. The malady begins by red, circular, furfuraceous spots, on the surface of which very small pustules break out, conglomerated less abundantly at the centre than at the circumference. The pustules of porrigo protrude less than those of favus, but are also umbilicated at their centre. They dry rapidly, and are replaced by thin crusts, which fall away, leaving the uneven and desquamating patches on which the pustules were engrafted, and on which they reappear occasionally after a considerable interval. The desiccated crusts resemble, when they crumble away, soiled plaster or mortar. This disease shows itself spontaneously in children and lymphatic subjects, but it is usually propagated by direct contagion. It can be distinguished from favus by the agglomeration of the pustules, and by the lesser depth of the cups formed by the umbilicated pimples. Impetigo figurata will be readily separated by the attentive observer from porrigo scutulata by its superficial pustules and the bright red inflammatory areola which surrounds them; this form of impetigo, besides, is never contagious. The prognosis of the eruption which now occupies our attention must be guarded—not that the disease is in itself of a serious nature, but because it often resists with great obstinacy the various methods of treatment recommended against it: the eruption seldom produces permanent baldness. We do not in porrigo scutulata, more than in favus, induce you to expect much success from internal treatment. The crusts should, in the first place, be removed by the application of poultices; after which the local condition of the diseased cutis should be modified by alkaline, sulphurous, or acidulated lotions, or with ointments containing calomel, iodide of sulphur, or the sulphuret of lime.

Herpes decalvans is a contagious malady in which one or several bald patches are observed on the scalp, and on each patch a very slight flowery desquamation. This disorder appears to be extremely common in England, where it has almost invariably been confounded with porrigo scutulata. Pustules are never noticed in this form of eruption, but very small vesicles, the presence of which it is not always an easy matter to demonstrate. The hair does not fall away from the diseased parts, but breaks off at a few millimètres from the surface of the cutis, in which the roots remain, however, solidly fixed. What causes can be ascribed to the section of the hair? We are inclined to refer this singular circumstance to the mechanical action of the small squamæ of herpes. When only one patch exists, it is always very evidently of a circular form; but several may unite and form a large bald space, on the borders of which can be traced the circular edges of each of the small patches which have been thrown into one. This eruption of the scalp generally coincides with the presence of herpes circinatus on the neck, forehead, or back. The disease is almost constantly observed in children between the ages of eight and sixteen, and occasions no other symptom but a slight itching. Its duration is extremely long, and may extend over a period of several years. The treatment which we recommend consists in alkaline lotions, assisted with the daily application of an ointment containing two grammes of tannin to thirty of lard. (ʒss. to ʒj.)

PHAGEDENIC CHANCRE; ITS TREATMENT, BY DR. RICORD.—The phagedenic form of a chancre is never the first which the primary ulcer assumes; it is always a deviation from its usual course, produced either by some unfavourable local condition, or by general predisposition. Thus, we have frequently seen chancres, at first of a very simple aspect, acquire the most virulent phagedenic tendency, in consequence of intemperance, particularly in the aged; it may, also, be the result of misery, privations, damp habitations, scurvy, &c. The tenacity of these ulcers is a well-known fact, and, in many instances, death has been the result of these obstinate ulcerations. We have had the opportunity of performing *post-mortem* examinations in four cases of this description, and in all the same alteration was present, viz., extensive ulceration of the large intestines—a fact which acquires some interest, when it is recollected that this anatomical change is also observed in the large intestines of subjects who have died from extensive burns. The treatment of this most formidable ulcer, founded entirely upon empiricism, had hitherto yielded no satisfactory results. Every local application, from the most inert powder to the most active caustics—every form of internal medicine—had been tried by M. Ricord and others, but it had been possible to draw no conclusions whatever from their inconstant effects. M. Ricord has, however, been of late more fortunate. The exhibition of the tartrate of potass and iron, in doses varying from ten grammes (ʒ ijss.) to twenty (ʒ v.) daily, is followed with decided advantages. This quantity of the drug is dissolved in ʒiv. of water, and should also be used for the dressings of the sores. The internal use of bitters, anticorbutic medicines, wine, and a generous diet forward the progress of the cure.

RESEARCHES ON THE PURGATIVE PROPERTIES OF SCAMMONY AND JALAP, BY DR. WILLEMIN AND DR. RAYER.—Scammony and jalap, after having for many years enjoyed a well-deserved reputation as purgative cathartics, had since a long time fallen, in France, almost into disuse. Their action was reported to be uncertain and irritating, and the jalap tuber was by common consent looked upon as more energetic than the powder of scammony. M. Rayer endeavoured on these various points to ascertain the truth, and having exhibited both substances, in 210 cases, came to the following conclusions:—The scammony of Aleppo, at the dose of one gramme (eighteen grains), usually occasions three or four motions; if exhibited at the dose of one gramme and a half, its action is scarcely equal, and sometimes is weaker than that resulting from the smaller dose of the medicine. The addition of acid or alkaline fluids to the drug does not increase or diminish its power in any evident manner. The resin of scammony (extractum scammonii) produces in doses of fifty centigrammes (nine grains) a purgative action equal to that occasioned by the exhibition of one gramme of scammony; this action is less marked when the quantity of resin is increased to one gramme, and diminishes still more if the dose be carried to one gramme and a half. The resin of scammony causes epigastric heat and irritation of the lower intestine more frequently than jalap; and the resin should always be preferred to the scammony itself, because the various kinds of scammony of commerce are always more or less impure. The resin or extract of jalap, in doses of 0·50 centigrammes, acts upon the bowels in as satisfactory a manner as the same amount of the extractum scammonii. —*Archives de Médicine.*

TREATMENT OF PUSTULA MALIGNA.—Dr. Marati, of Naples, asserts that in this disease, which in France and, we believe, in every other country is so often the cause of deformity, or even death, he has constantly obtained success from the application, twice a day, of mercurial ointment to the diseased parts. In one case only were the inunctions followed by salivation. Before adopting a course of treatment so mild for a disease of so violent a nature, and which progresses with such frightful rapidity, as pustula maligna, we should certainly have some further authority besides a single assertion; and a history of some of the cases, together with the grounds of the diagnosis, would not be superfluous.

EMBRYOLOGY.—At the last meeting of the Academy of Medicine an interesting anatomical preparation was presented by M. Blot, interne at La Charité. M. Blot demonstrated on an ovum of four months, contained in the uterus, that in the vicinity of the internal orifice of the Fallopian tubes the membrana decidua is perforated by several minute apertures; and further, M. Blot asserted that, in December, 1846, he had an opportunity of ascertaining the presence of a well-circumscribed orifice to the same membrane above the os uteri. This orifice was closed

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by mucous matter. From these circumstances, M. Blot concluded that the description of the decidua, as it is to be found in contemporary publications, was incorrect, as well as the generally adopted theory of its mode of formation.

Vesical Calculus in Infancy, by M. Guersant.—Since the year 1840, M. Guersant has operated at the Children's Hospital upon forty-two subjects: all, with the exception of four, were boys. Before deciding upon the method to be employed for the removal of calculus, M. Guersant recommends the exploration of the bladder with lithontriptic instruments, for the purpose of ascertaining in a precise manner the size of the concretion. In little girls the introduction of crushing instruments is always easy, but the bladder can only with difficulty be kept in a state of distention. In nine cases M. Guersant has adopted lithotrity—six were cured and three died; but two of these only from the results of the operation. M. Guersant, in opposition with M. Ségalas, considers that the presence in the bladder of a large number of concretions is a counter-indication to lithotrity. In the case of a boy, aged eleven, who had been eleven times submitted to this operation by M. Ségalas, M Guersant performed cystotomy, and was obliged to introduce the forceps thirty-two times before he could succeed in removing the whole amount of calculi which had accumulated in the bladder: their total weight was ninety-one grammes (℥iij.). In thirty-five cases M. Guersant employed this method, and twenty-nine children were cured; and of the other six cases which terminated fatally, death could only in two instances be referred to the operation, and was in the remaining four brought on by croup, scarlatina, pneumonia, &c.—complications independent of the operation itself, and which are more frequent in hospital than in private practice.

D. M'Carthy, D.M.P.

Difficulties of Diagnosis in Aneurisms about the Root of the Neck.—Dr. Norris, surgeon to the Pennsylvania Hospital, in his article in "The American Journal of the Medical Sciences," notices three cases in his table, where the root of the carotid, or the innominata, was supposed to be the seat of the tumour, when it was afterwards found to have arisen from the aorta itself. Velpeau, in his "Médecine Opératoire," mentions two other cases in which the carotid was tied where similar mistakes in diagnosis occurred. One of these was observed in the Civil Hospital of Amsterdam, in a man affected with an aneurismal tumour projecting above the sternum. M. Tellanus, believing the left carotid to be the seat of the disease, tied that vessel a little beyond the tumour. The patient recovered from the operation, but died suddenly five months afterwards, when the tumour was seen to arise from the cross of the aorta, and to be completely filled with a white clot. The parts are shown in the pathological collection of the hospital. In the other case the aneurism, which appeared to be on the point of bursting, showed itself, as the preceding one, just above the sternum. Looking upon it as an aneurism of the carotid, M. Rigen placed a ligature above the tumour. After the operation it diminished considerably in size, and the sufferings of the patient became less. In four months after the patient died with symptoms of asthma. The autopsy showed the aneurism to have its origin in the arch of the aorta, between the left carotid and the innominata, and was filled up, as in the case of Tellanus, by coagula.

Tubercular Tumour of the Vertebræ opening into the Œsophagus.—A female patient, in the Hospital of Bassano, was troubled with an obscure affection, accompanied by extreme marasmus, which came on after her last confinement. There was difficulty of swallowing, difficulty of breathing, severe vomiting, and general debility. She died exhausted by hectic fever. Both pleuræ were found adherent, and behind them, over the vertebral column, a tumour, the size of a walnut, was discovered springing from the fifth dorsal vertebra. Another tumour, still larger, included the bodies of the fourth, fifth, and sixth vertebræ, the osseous structure of which was converted into a soft caseous matter. The canal of the œsophagus was narrowed, and firmly adherent to the most prominent part of the last-mentioned tumour, a portion of the contents of which had escaped through an irregular ulceration.

Albuminuria in the Puerperal State.—Dr. Simpson related to the Edinburgh Obstetrical Society some cases illustrative of Bright's disease, as denoted by the appearance of albumen in the urine, under the action of heat and nitric acid, and remarked that albuminuria, when present during the last periods of pregnancy and labour, denotes a great tendency to puerperal convulsions. That sometimes it gives rise to other and more anomalous disarrangements of the nervous system, without proceeding to convulsions—such as local paralysis and neuralgia in the extremities, functional lesion of sight and hearing, hemiplegia and paraplegia more or less fully developed. Œdema of the face and hands is one of the most frequent results. This œdema, or any of the lesions of the nervous system without it, should always make a suspicion of the presence of albuminuria; and, if the urine verifies these suspicions, antiphlogistic remedies should be employed to guard against puerperal convulsions. Albuminuria and its effects are far more common in first labours, and the results generally disappear after delivery. When this disease appears in subsequent confinements, it generally results from fixed granular disease of the kidney, and does not appear after delivery. It is probable, in puerperal convulsions produced by albuminuria, the immediate pathological cause of the nervous lesions is some unascertained state of the blood. In several specimens of this fluid no traces of urea could be detected. The renal secretion is not in general greatly diminished; and Dr. Simpson has found active diuretics apparently of great use along with or after venesection, antimony, &c., especially when the case threatened to be prolonged. Sometimes hemiplegia supervened during pregnancy, without albuminuria; but this form did not seem to interfere materially either with the pregnancy or labours, the disease running its usual course. Sometimes the patient imperfectly recovers; at others no improvement has been perceptible.

Abnormal Sounds in the Heart and Arteries.—Dr. Pickford, of Heidelberg, mentions a number of cases in which a blowing sound was heard in different arteries, particularly in the aorta abdominalis. The persons in whom these sounds were heard were affected with gastrocismus, typhus, tuberculosis, cholera, sporadica, nephritis, and one was apparently healthy. All were more or less anemic; and it has been thought that this blowing sound depends not upon an altered state of the blood, but on a spasmodic contraction of the arteries, to which this disordered condition of the blood gives rise, and to which hyperemia more than anemia seems to dispose. It is also supposed that this spasmodic contraction may take place in the heart, and thus cause those abnormal sounds so often heard in anemic and chlorotic patients.

Croton Oil in Tuberculization of the Lungs.—M. Rayèr employs this drug as a topical application, with advantage as a palliative. The patient is to pour gradually twenty-four drops (which is the quantity used for each friction) on the anterior part of the chest, and to rub it in with the palm of the hand. The employment of the croton oil, in this quantity and in this manner, is attended, he says, with no danger; and it affords a very sensible relief to the dyspnœa, the restlessness at night, and the fever, which so often distress patients. During friction with the hand the papulæ never rise on the palm, owing, probably, to the thickness of the epidermis.

Ligature of both Carotids.—About the year 1823, Dr. Macgill, of Maryland, tied both carotids in the case of a female affected with fungous tumours of both orbits. Vision was destroyed, and the eyes presented the appearance of a confused mass protruding beyond the sockets. Several months after the operation she is said to have been doing well, and the tumour subsiding. In a case of aneurism by anastomosis of the scalp, Dr. Mursey tied the left primitive carotid, and on the twelfth day after, secured that of the right side. These operations failed to cure the disease, though they had the effect of reducing the tumour apparently to about one-third of its original volume. It was subsequently removed by excision, about three weeks after the second operation. In this operation, which occupied more than an hour, notwithstanding that not more than an inch and a half of the scalp was divided at a time, and that, immediately upon the division, firm compression was made upon each lip of the incision, while the vessels were secured by ligature, yet blood to the amount of nearly two quarts was lost, and the application of more than forty ligatures was required. The patient did well, and ten years after it continued to enjoy good health, though occasionally he had symptoms of cerebral plethora. Langenbeck, in a case of profuse hemorrhage coming on eight days after the application of a ligature to the superior thyroid for the cure of bronchocele, ligatured both carotids. The patient died on the following day. In a child four years and a half old, Muller tied one primitive carotid for the cure of an erectile tumour, and in four months after secured the other. The operation was successful. Kuhl, of Leipsic, in the case of a man, aged fifty-three, affected with an aneurismal tumour on the occiput, tied the left carotid, and on the seventy-second day after, in consequence of profuse hemorrhage from the scalp, took up that of the right side. The patient was cured, though he had after hemorrhages from the tumour, which suppurated. During the first of these operations the patient was seized with convulsions and faintings, and was removed to his bed in a state of insensibility; slight convulsions also occurred during the performance of the second operation. Dr. Mott ligatured both arteries, with an interval of fifteen minutes, for disease of the parotid. Coma supervened, and the patient survived only a few hours. Dr. Ellis, of Michigan, tied both of these vessels, with an interval of four days and a half, in a case of a secondary hemorrhage following a gunshot wound, and cured his patient. Dr. J. S. Warren, in a case of erectile tumour affecting the mouth, face, and neck, tied the primitive carotid, and in a month after ligatured that of the right side. After this second operation, the tumour of the lip diminished one half, and the fulness of the face and neck, and size of the tongue, became less. Finding that the disease did not wholly disappear, it was determined three weeks after the last operation to remove the diseased portion of the lower lip, not less than two inches in length at its free edge, by a triangular incision; but previously to this, in order to avoid hemorrhage, a cataract needle was plunged into the vascular tissue on the left side, and carried in different directions so as to break up and destroy its organization. Three days afterwards, a similar operation was repeated on the right side, and at the time the excision was made, strong compression was exercised on each side of the lip by means of two steel forceps prepared for that purpose, so as completely to intercept the course of blood into it. In a fortnight or three weeks the patient returned home well.

On the Frequency of the Pulse and Respiration of the Aged.—Physiologists, generally, have considered it as an established fact that the frequency of the heart's action diminishes in advanced age; and no one had called the correctness of this view in question until Leuret and Mitivié, in 1832, whilst engaged at the hospital of Salpêtrière, Paris, in observations relative to the pulse of the insane, were astonished to find that the pulse of 34 sane women in good health, whose medium age was 71 years, presented the average of 79 beats in a minute. This fact induced them to make further observations, and to institute an inquiry as to the relative frequency of the pulse in the young adult and that of the aged.

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On the same day, at the same hour, and under analogous circumstances, the pulses of the young men at the veterinary school at Alfort, and those of the old men in good health at the infirmary at Bicêtre were examined. The number of the veterinary students was 110, that of the aged men 27; the average age of the students was 21 years, that of the aged men was 71 years. The result of this examination proved that the medium pulse of the young men was 66 per minute, whilst that of the aged was 73. Temperature, 32° F. Dr. Pennok, of the Philadelphia Hospital, Blockly, has also instituted a series of observations on the pulse and respiration of the aged inmates in the adjoining infirmary. The number of persons whose pulse is reported is 170 and 203 women, being an aggregate of 373, the ages of the men being between 50 and 90 years, those of the women from 50 to 115 years. The following tables exhibit the results obtained. Table I. is derived from the observation of the pulses of 170 men, the aggregate of whose ages is 10·895, and that of the pulsations 12,211. The respirations were counted in 146 instances, the total number of inspirations being 3045. The medium age was found to be 64·09 years; the medium pulse 71·83 per minute; the medium respiration 20·51; ratio of respiration to pulsation as 1 : 3·51. Table B is derived from the observation of the pulse of 203 females, the aggregate of whose ages is 14,326, and that of their pulses 15,838. The respiration was counted in 143 individuals, and its aggregate is 3154. The medium age was 70·57 years; the medium pulse 78·02 per minute; the medium respiration 22·06; ratio of respiration to pulse as 1 : 3·53. From the preceding facts, it would seem to follow that the medium pulse of the aged man may be stated to be 71·83, that of the aged females 78·02 per minute, whilst the respiration of the former is 20·51, that of the latter 22·06 per minute. The ratio of the respiration to the pulse in aged men is as 1 : 3·51; that of the women as 1 : 353. It appears that in above one-half of the aged men, 52 per cent., the pulse ranges from 76 to 84; that in more than one-third, 48 per cent., it is over 63; whilst in about 2 per cent. it averages, say 55; and in rather more than 3 per cent. it is over 96. It was evident, also, that the pulse of aged females varies from 70 to 104 in nearly four-fifths of the individuals, 79·93 per cent. of those examined; that in more than two-thirds, 69·45 per cent., the range of the pulse was between 75 and 86; that in 7·89 per cent. the pulse was between 95 and 96; that in 2·41 per cent. it was at 104; whilst it was below 70 in but a small number, viz., 37 out of 203, being rather less than one-fifth of the whole, or 18·34 per cent.; the pulse was below 60 only in five instances, or in 2.41 per cent. of the whole number. From the preceding facts and researches, it is evident that the frequency of the pulse of the aged is much greater than that usually assigned to it; whilst that of the respiration is equal to that generally admitted in reference to the adult in middle age.

Microscopical Characters of Aphthæ.—Under a microscope, with the power of increasing the objects by 200 to 300 diameters, Dr. Berg, of Stockholm, says that an apthous crust consists of epithelial cells, with a more or less interweaved web of fibres, and a variable number of spherical or oval cells, without any sign of exudative corpuscles, but only a small quantity of molecular albuminous deposit. These cells are, with the exception of the nucleus, everywhere transparent, and have a sharply-defined edge; they vary in size according as they are oval, spherical, or more prolonged (0·0004—0·0015m. and more). Sometimes they present no nucleus, or an almost imperceptible trace thereof; but the larger ones contain almost always nucleated cellules, sometimes two, or even more. These nuclei lie usually in the centre, but very frequently also at the end of the cells. We can often trace the successive development of these cells from a spherical one of the smallest size to an oval cell, and thence to a filament; and there is no doubt that the smaller cells are sporules, out of whose development the larger oval cells are formed, and finally the filaments in the same manner as has been observed in other fungoid growths of this nature. The sporules above noticed bear a strong analogy to those of yeast, not only as regards their external form, but likewise in their power of resisting chemical reagents.

Cholera.—Mr. Herapath, the chemist, of Bristol, says that the infecting aura of cholera, although not sulphuretted hydrogen, or that acid in combination with ammonia, may be destroyed by exposure to a temperature of about 300° F., and by an atmosphere containing chlorine; it is capable also of being absorbed by transmission through nitrate of silver, which it tinges red; it cannot be propagated by inoculation, but easily by entering the air-cells of the lungs.

THE PATHOLOGICAL SOCIETY.

(Meeting Oct. 18; about from 40 to 50 present.)

Dr. Ward presented the stomach of a child, partially dissolved by the gastric juice, for the inspection of the members present. The patient from whom it was taken was nine months old. When first seen it was suffering from violent diarrhœa—to such an extent, indeed, that the fæces seemed to pass in almost a continued stream. There was considerable emaciation. Some medicines were administered, which seemed to produce beneficial results. No nourishment, however, was taken, except the mother's milk. Eventually the child wasted away, and died—the diarrhœa ceasing before death. The *post-mortem* examination showed the intestines contained a considerable quantity of blood, especially near the cœcum. On raising the stomach, the finger easily passed through its coats, and throughout its great curvature it was apparently digested, the cellular tissue and peritoneum alone remaining. There appeared no other cause of death but exhaustion from insufficient diet.

Dr. Peacock submitted a heart malformed, for examination. It was that of a young man, a patient of the Royal Free Hospital. He had been for two years in a declining state of health. Had been troubled with a cough, and expectorated considerably at different times. Six weeks before his admission into the hospital he had spat up blood. He was greatly emaciated when admitted. He had then a frequent cough, with muco-purulent expectoration; pulse frequent and feeble; right side of the chest flat; left fuller and more rounded; pulsation of the heart dull over a large portion of the chest. A loud murmur was heard most intensly over the left nipple, which was also audible at the top of the sternum. No remedies seemed to benefit him, and he died.

On opening the chest, the right lung was found studded with tubercles. In the left the tubercles were consolidated. There was considerable effusion into the pericardium, and the heart was much enlarged. The pulmonary artery was greatly contracted at its commencement. Foramen ovale open; liver, spleen, and kidneys of a large size. There were no symptoms of cyanosis before death; and the murmur which was heard was more characteristic of disease of the mitral valves than of the pulmonary artery.

A specimen of disease of the forearm, in which amputation was performed, was presented. The patient was a man seventy-six years of age, who about six months ago had his hand forcibly twisted round by a cart wheel. About two months after a small tumour appeared on the forearm, and he became a patient at Bartholomew's Hospital, which he left of his own accord. He then placed himself under the parish surgeon in his native place, who punctured the tumour. It continued to increase, however, till admitted into the Royal Free Hospital. The forearm was then greatly swollen, and on its centre was a large sloughy wound, which when cleansed exposed to view the two bones and interosseous ligament. Subsequently a spongy growth began to develop itself, and hemorrhage occasionally supervened. To save the old man's life amputation was proposed, to which at first he would not consent. Eventually, however, the limb was removed above the elbow. Upon examination of the diseased part nothing but blood and pus globules could be discovered.

Mr. Beckett presented specimens of testicles affected with strumous disease. One case which occurred in the practice of Mr. Cooper, and by whose permission the diseased testicle was brought before the society, was that of a man, thirty-six years of age, who had suffered from gonorrhœa, but was perfectly cured. Some months afterwards the testicle began to swell; fomentations and leeches were applied, but suppuration occurred, after which he recovered. This took place nine or ten years ago. The testicle always continued of a larger size than the other. Last April the testicle began again to enlarge, and at length suppurated; and on Tuesday last Mr. Cooper removed it, more on account of the inconvenience it produced than anything else. The tubuli, on examination, appear indistinct, and there is much matter of an inflammatory character.

Mr. Ward gave a brief history of a case of stricture of the œsophagus. The contraction of the œsophagus was so considerable that the little finger could be scarcely admitted, and below the stricture the canal bulged out into a sack of considerable size, with irregular walls denuded of mucous membrane. There were two or three openings, so that the rings of the trachea were exposed, and granular cells were observed under the microscope. Before death little had been attempted. Bougies had been occasionally passed, but as they occasioned great pain they were eventually discontinued. The patient was troubled with dyspnœa, loss of rest, and everything which he attempted to swallow was thrown back again.

The President related a case of disease of the heart and mitral valves, and presented the diseased parts for examination. The man from whom they were taken had suffered from enlarged heart for a considerable time, and frequent attacks of rheumatism, which injured his constitution. Ten days ago he came under the care of the president with symptoms of obstructed circulation—pulse beating irregularly, as in morbus cordis; dulness of the chest on percussion extending over the anterior portion of the chest, particularly across from one nipple to the other; pulsation in the jugular veins perceptible to the eye; there was a harsh murmur in the epigastrium. Instead of the impulse of the heart being distinctly felt on the left side, it was difficult to say where the apex of the heart was—a proof that the organ had altered its shape, having become globular, so that its impulse was perceived over the whole chest, even to the epigastrium. There were also other symptoms of heart disease. Diagnosis—pulmonary apoplexy, which, at the *post-mortem* examination, was found to be the case in the left lung; the right was dark and congested; the heart was enormously enlarged, and its form altogether altered; mitral valves diseased; there was a deposit of osseous matter in the aorta. The apex of the heart was changed, the great prominence of the left ventricle pushing so much forwards that the whole front of the organ appeared to be occupied by it. In consequence of this the murmur was heard in the peculiar situation noticed during life.

A specimen of cancerous tumour of the lung was presented by permission of Dr. Hamilton Roe, who had attended the patient, a hard-working boy, thirteen years of age. He first complained about Christmas last, suffering then from a cough, with expectoration, unattended with pain. Three weeks ago an attack of hemoptysis came on, and there were pains in both sides. The patient, however, slept well, but had slight sweats during the night. When first brought under the care of Dr. Roe, the left thigh and arm were larger than usual. At the autopsy, on removing the sternum, the pericardium was found distended, and on puncturing it sixteen ounces of serum escaped; the right auricle hard, and the walls of the muscle extremely thin. On cutting

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into the apex of the right lung a large cancerous tumour was discovered. Liver and kidneys natural; left jugular much dilated.

In the room we observed the excellent portraits, belonging to Mr. Corfe, illustrative of his papers "On the Classification of the Physiognomy of Diseases," now appearing in the pages of the *Medical Times*, and which excited the admiration of the members of the society then present. Copies of these portraits will be published, which will give an additional interest to the papers, now in the course of publication, "On Semeiotics."

TO CORRESPONDENTS.

THE MEDICAL TIMES may be procured by an order on any Newsman or Bookseller, or it will be sent direct by post from the Office of the Medical Times to Subscribers sending by a Post-office order, directed James Angerstein Corfe, 69 yn under an home party in town, One Guinea, IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d.

A HANDSOME PORTFOLIO *for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 6s. An allowance is made to the trade.*

COVERS FOR BINDING *the Numbers of the "MEDICAL TIMES" are now ready, and may be had, by order of any Bookseller, or at the Office, price 1s. 6d.*

F. G. F., Frome, Somersetshire.—*The account of the meeting was not duly authenticated, or it would have been noticed in our columns. Our friends should forward their names in confidence, when they wish particularly to have their communications inserted. It is necessary in the large amount of correspondence which we have weekly to inspect that great circumspection be used in the acceptance or rejection of communications.*

Alpha.—*The letter deals too much in generalities. If a particular dereliction of duty in any of the officers of the institution be mentioned and authenticated it shall be published.*

Mr. Lockstone.—*The College library is accessible to gentlemen who are not members on certain conditions, easily fulfilled.*

Dr. F. Beecham.—*The communication has not been received, for which we are unable to account. If our correspondent will write again, it shall receive an early notice.*

M. D., Edinburgh.—*The London College of Physicians forbids any of its fellows or licentiates to practise pharmacy on pain of expulsion.*

Argus.—*The quack is contemptible, and his medicines deleterious. We know of no means of putting him down except public exposure; the law, under present circumstances, cannot touch him.*

A Young Surgeon.—*We cannot recommend any particular place "where there is a probability, after a time, of acquiring a moderate share of medical practice." An advertisement may, perhaps, be the means of directing our correspondent to some professional gentleman who would relinquish practice in his favour on certain conditions.*

A Country Practitioner.—*The Apothecaries' Company is the party to whom application should be made. A prosecution no doubt could be sustained, and it is likely the Society would take up the matter by urging them to duty.*

Chirurgus.—*We are aware of the crusade of the College. The conduct of the council in not regarding a high standard of professional education as important, leads to a strong suspicion that the inspection of museums is intended chiefly to promote individual interests.*

Chemicus.—*Those who sell poisons must be licensed in France; in our own country any ignoramus may sell arsenic or prussic acid without danger of prosecution.*

A Student, City.—*Celsus and Gregory must be generally construed in the examinations at the Hall. There is no fear of passing when the candidate is furnished with a fair knowledge of the profession which he intends to practise.*

We are indebted to Mr. Garlick, of Halifax, a gentleman who has done much for poor-law medical officers, for a very interesting summary of his poor-law practice. He is likely, we presume, to lend his assistance to the Convention, in the proceedings of which we hope to give his summary, with any additional remarks.

Mr. Pearson *informs us, that every medical officer of the Prescot Union attended the meeting announced in another column.*

*** *Numerous communications with which we have been favoured, forming probably proceedings of the Convention, will be noticed on other occasions. We have to reiterate our acknowledgments to the obliging authors.*

Mr. Anderson.—*The disappointment is at present unavoidable.*

A Subscriber.—*The examination for the fellowship is held three times in the year, at such periods as the council may determine.*

Amicus *has sent us a communication in reference to "a disgraceful transaction which took place in the men's accident ward, Guy's Hospital." The letter cannot be inserted without being authenticated. We cannot find the name of the party referred to in "The Directory."*

Dr. Woollam, Ashton-under-Lyne.—*The request shall be complied with next week.*

A Subscriber and General Practitioner *is thanked for his remarks, which shall receive all due consideration.*

Medicus.—*It is not usual to deduct the items referred to.*

A Subscriber, *writing in reference to Lunatic Asylums, must stand over for the present.*

Dr. J. C. Hall, East Retford.—*We shall be happy to publish a communication from our correspondent on the subject referred to.*

Mr. Edward Daniell, Newport-Pagnell.—*The paragraph shall be inserted.*

Mr. Allison, East Retford.—*We feel obliged for the information.*

We beg to offer our thanks to Dr. Gillkrest, Inspector-General of Hospitals, for the interesting paper received from him, which shall appear next week.

A correspondent, who writes to us on the subject of Lectures on Organic Chemistry, is informed that a course has just been published in the "Pharmaceutical Times."

Iatros, Glasgow.—*The paper forwarded on Chlorine in Phthisis is under consideration.*

Dr. W. H. Brown.—*We must allow the subject to drop.* Requiescat in pace.

A Looker-on.—*The communication on the Poor-law Medical Relief Movement has been received.*

H.E.I.C.S., Edinburgh.—*The paper on Asiatic Cholera has been received, and we will endeavour to find a place for it in our columns next week.*

H.—*We do not notice nameless inquiries.*

We have received Mr. Warder's communication. We have at present no space for its insertion, although we concur in the justice of some of the writer's observations.

Medicus.—*We published a course of lectures by Lallemand on a subject akin. The work itself of a French surgeon (on Spermatorrhœa) has been recently favoured with an English dress by Mr. M'Dougall.*

A Student's *question has been already answered.*

Q.—*We have no space to notice what were the results of the many actions of libel by Bransby Cooper, Tyrrell, Macleod, Guthrie, Collier, and others, against the "former editor of one of our contemporaries."*

A Surgeon *should attend the Convention by all means. His reception by the M.P. named was certainly none of the most courteous, considering the subject.*

A Duped Author.—*The complaint is certainly a legitimate one, but we prefer not to be the medium of its publicity.*

Letters and communications have also been received from Mr. Anderson; Amicus; Dr. Woollam, Ashton-under-Lyne; A Subscriber and General Practitioner; A Subscriber; Mr. Edward Daniell, Newport-Pagnell; Mr. Allison, East Retford; A Student, City; Chemicus; Chirurgus; A Country Practitioner; A Young Surgeon; Argus; M.D., Edinburgh; Dr. F. Beecham; Mr. Bookstone; Alpha; F. G. F., Frome, Somersetshire; Dr. G. Palmer, Birmingham; Mr. G. Corfe, Middlesex Hospital; Mr. C. H. Hallett, Edinburgh University; Dr. Gillkrest, Inspector-General of Hospital, Lane's Hotel, Regent's-park; Iatros, Glasgow; Dr. W. H. Brown, Putney; A Looker-on; H.E.I.C.S.; Mr. Alfred Ebsworth, Bulwell, Notts; Mr. Warde, Newtownlimavady; Mr. Elliott, Exeter; Mr. Pinoott, Chipping-Ongar; Mr. Harvey, South Petherton; Mr. Turner, Tamworth; Mr. Lambden, Coningsby; Mr. Orton, Cheltenham; Mr. Blundell, Landport.

THE MEDICAL TIMES

SATURDAY, OCTOBER 28, 1847.

THE POOR-LAW CONVENTION.

THIS EVENING WEDNESDAY.

It would be impossible to describe the solicitude and interest with which the approaching meeting is regarded. The public journals are already beginning to mirror the general feeling. The *Daily News* furnishes its quota of poor-law contributions; and to the *Times*, with several letters, we owe an excellent leader.

As to the progress of the Convention, we have no anticipations save the happiest. There will, we cannot doubt, be the best mutual concord and good feeling. There is but a sole object: and that a public one: all beside it will be too harsh and discordant and obnoxious to be even hazarded. Personalities, as regards either poor-law guardians, commissioners, or even professional disturbers, are needless, and to our minds beneath the notice of the Convention's dignity. The *public* business to come before it is higher and far more important, and is quite enough to occupy all attention.

There should be no talk or semblance of trade combination. Injured men in large numbers, embarked in a common cause, need no useless bravado about possible contingencies. Power possessed dispenses with the boast of power. What the probabilities are, we say not, further than that they are obvious, and will be invited by no prudent statesman.

That the proceedings will be practical, vigorous, and full of decided action, we cannot doubt. There has been abundant time for preparation; and evidence irrefragable already exists to win conviction from any Home Secretary of average capacity. System, order, decision, and talent, and we shall take up a position strong, resistless, and insurmountable.

GUY FAWKES DAY AT THE MEDICAL SCHOOLS.

"Ridentem dicere verum,
Quid vetat?" HORACE.

THE important day has just past, which, in the annals of our profession, holds such a distinguished place. We considered it our duty, a week or two since, to make some especial observations in reference to the feelings which the 1st of October excites in the bosoms of old and young—the successful and unfortunate of the sons of medicine. We have no doubt but our readers were well convinced of the truthfulness of our remarks, and, in thought, realized once more the

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pleasing sensations which that happy period produced when the first entrance upon the student's life was made.

We have been disposed to view this period, however, so pregnant with joy to youths just emancipated from the trammels of their parchment slavery, and which, in after years, produces in the mind such sweet and sad reminiscences, as bearing a very close analogy to a day big with delight to every schoolboy, and which is distinguished by the name of "Guy Fawkes' day." There is not a seminary throughout this part of the kingdom where the pyrotechnic art is not then called into requisition to please and astonish the gaping youths. The "professors" are wont on those occasions to put forth their best talents to produce a brilliant display; and he receives the most plaudits whose fireworks produce the greatest blaze and most noise. Of course, the exhibitions end altogether in smoke: both parties, however, concerned being abundantly satisfied—the artist with the money pocketed, the youthful spectators with the sights they have beheld; and each at the same time wishing for a speedy return of the happy day.

The 1st of October is "Guy Fawkes' day" in the medical schools of this metropolis, for which the professors make the best preparations in their power to let off, for the benefit of the *alumni* and themselves, those literary pyrotechnics which are generally known by the name of "introductory lectures." These works of art are as varied in their appearance and merits as those material fires which we have now selected as parabolic emblems of intellectual things. In some departments of the metropolis the youthful spectators had to content themselves with the bounce and smoke of noisy crackers; in others, they were favoured with the more brilliant exhibition of serpents and Roman candles; in others, a species of Greek fire was let off, which was intended not to damage the persons of the spectators, but simply to fix upon their pockets, so that the cash therein contained should drop into the hands of the skilful pyrotechnists; in others there was a grand display of rockets, which, having ascended far into the regions of space, assumed the shape of flowerpots, containing a choice assortment of the flowers of rhetoric. We have understood that two or three of this kind of fireworks, immediately on the application of the match, exploded, and did no small damage to the manufacturers, their feelings being severely wounded, and their pockets greatly damaged. Indeed it is no uncommon thing to see compounded by mediocrity of talent, on these occasions, such mixtures of thought and expression, that, instead of attaining to the sublime, the wretched compounds explode into the ridiculous.

We have been thus far general in our remarks; it will, perhaps, afford increasing gratification to our readers if we become a little more particular. And here we must be understood as not confining our description to the displays which were made on the 1st day of October, but also to the subsequent ones, on which introductory lectures were delivered. The children of this world are said to be wise in their generation, and so are the gentlemen who occupy the important posts of professors in the London schools. Hence they have manifested especial care in so arranging the exhibitions to which we refer that the students may lose as few opportunities as possible of witnessing the works of art.

The first deserving of notice, on account of its name, is the school connected with the hospital founded by the eccentric and wealthy Thomas Guy. In former times the genius of Sir Astley Cooper was sufficient to render the teaching establishment so celebrated as to attract no small number of pupils, not only to the surgical but other lectures also. Since his decease the glory is departed, and Guy's day at Guy's presented no very brilliant display of the fires of genius. A-jack-in-the-box, however, discharged by Mr. Bransby Cooper, went off rather satisfactorily to some of the gentlemen connected with Longman's establishment, who, nevertheless, were thought to look, amid the coruscations of light, rather blue.

The Royal Hospital of St. Thomas, on the opposite side of the way, had the most brilliant exhibition. Mr. Green proved himself a skilful pyrotechnist in the rocket department, and the younkers manifested their approbation of his talents in the usual way with hands and feet.

At Bartholomew's, President Lawrence was, of course, considered the principal artist, in consequence of his connection with the Lincoln's-inn establishment. The illustrious gentleman, as the profession well knows, has shown himself an adept in the fabrication of combustibles, as he on one remarkable occasion actually "blew up" the College of Surgeons. There was no fear, however, of a blow-up at Bartholomew's, for the result would have been particularly disastrous to his own pocket; the worthy gentleman, therefore, to show his contempt for the spectators, while he would do something to please them, merely let off a few pin-wheels, the cases of which were afterwards found to be composed of some old manuscripts in his own writing, evidently intended for some journal, on which could be distinctly seen the words "bat," "owl," "noodle," "ape."

At King's College much skill was displayed by the professors, and great satisfaction by the young gentlemen who were brought together on the occasion, and we understand that a goodly number entered to the various classes.

It must, we think, be acknowledged, by those who have directed their attention to the subject, that the custom which has so long prevailed of giving introductory lectures would be "more honoured in the breach than the observance:" they add nothing to the reputation of a lecturer, and nothing to the information of the student. As literary productions, many of them are below mediocrity, being such medleys of ideas and diction that, if they were to be valued, as Joseph's coat was, for its many colours, they would be, without doubt, beyond the power of the most learned individual to estimate their worth. With some, moreover, it was once the fashion to paint the future in the most glowing colours, professional success being exhibited as inseparably united to true merit. This experience has proved, in numerous instances, to be false, for individuals possessed of no ordinary talents have lived in obscurity and died in poverty. Such statements as these to which we refer are, therefore, offences against truth which cannot fail to add weight to the sufferings of individuals who, in spite of talent, meet with little of the world's patronage in after life. In the schools flowers of rhetoric may be very pretty, but they smooth no asperities in the rugged path over which the travellers will afterwards have to pass in their journey through the world.

Less injurious by far are those introductory discourses which give an account in one hour of the healing art from the beginning of the creation to the present time, without being enriched by one idea deduced from original inspiration. The natural effect of such a lecture must be to produce an inconceivable somnolency, which not even the most potent draughts of the best hyson or powerful shocks from a galvanic battery would be able to overcome—the name of the "illustrious Hunter" being alone sufficient to awaken the drowsy auditory to life and activity, as it assures them that the lecturer, having arrived within the circle of the present century, has come to the termination of his own discourse.

If the practice is to be continued of opening the medical year by introductory lectures, we hope that they will be increasingly adapted to the condition of the age. It is to the honour of some professors that they have already ceased to walk in the beaten path, and have thus set an example worthy of imitation. Honourable-minded men will, on these occasions, be as much concerned to benefit the student as to obtain his money; and he ought to succeed in obtaining the most pupils who is best adapted to instruct them.

MADHOUSE FRACTURES AND TUB BEDSTEADS.

It is usually understood, not only by philosophers, but individuals possessing the most ordinary minds, that no effect can exist without a cause. This axiom does not seem to hold good in some of the asylums established for the care of lunatics, two cases having occurred within the last few months—one at Grove-house, Bow, and the other at the Lincoln Lunatic Asylum—in which the ribs of maniacs have been fractured without any assignable cause, if we are to judge from the verdicts which coroners' juries have returned.

A singular inquest was held at Lincoln, last Monday week, on the body of a man named John Cottingham, whose death there was some reason to suppose had been caused by violence. This man was admitted last August as a patient into the Lincoln Asylum, and according to the evidence of Thomas Beech, an attendant in the establishment, he was not a refractory patient, but was mad chiefly on the subject of money and great personages. A few days after his admittance into the hospital, he complained to different persons of violent treatment from one of the keepers, named John Smith, under whose care he had been placed. This Smith, the patient asserted, had broken some of his ribs, and whenever he was taken hold of he suffered great pain, and could scarcely bear his side to be touched. The patient also complained to Mr. Walsh, the house-surgeon, who, having examined him, reported that there were no ribs broken. From this period the health of the man sensibly declined; he had an attack of dysentery, from which he got better; but became daily emaciated and exhausted, and ultimately died. A *post-mortem* examination was instituted, which Mr. Walsh conducted, when he reports that he found *four ribs broken*, adhesions of the pleura, aneurism of the aorta, and a brittle state of the bones. From the appearance of the ribs, the surgeon concluded that "they must have been broken a short time before death, there being no union of their surfaces, and no lymph thrown out." He, however, gave it as his opinion that, the deceased being rather advanced in life, the bones would not unite so soon as in the case of a young person. The cause of death reported on the surgeon's book was "death from maniacal exhaustion," at the same time Mr. Walsh stated that he had not the slightest

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idea "how, or when, or where the deceased had his ribs broken."

Mr. Edward Broadbent made a second *post-mortem* examination on the morning of the inquest. He found the body emaciated; no bruises externally. On investigating the chest, he discovered three ribs broken on the left side, and two on the right. There was sufficient inflammation developed to prove the fractures had occurred a short time before death. Mr. Broadbent was also of opinion that the fractured ribs had not caused death, but that this was produced by decay of the system.

There are circumstances about this case which are not a little mysterious, and which will leave a very unfavourable impression on the public mind towards madhouses, and the manner in which they are conducted. It is remarkable that this insane man should complain, a few days after his admittance into the hospital, that the keeper, Smith, had ill-used him, and broken his ribs; and that, according to the evidence of Wm. Forster, the chief attendant of the establishment, he made one continued statement, which he repeated even in his lucid moments. Shakspere speaks of men being sometimes favoured with "a lightening before death." This poor maniac seems to have been thus favoured, having a foreknowledge given him that previously to his departure out of this life, his ribs would be fractured, which, from the confused state of his mind, he considered as already accomplished; that Smith, his keeper, had cruelly done it; and with this impression he felt all the pangs which five broken bones must necessarily produce when he was moved about from one place to another. Still further, it is singular that this John Smith, who had been only in the establishment since July last, should state that the deceased had fought with him on one occasion, and that he recollected the patient's falling once after he had struck him, and that shortly after he said that his ribs were broken. Moreover, it is rather an unfortunate circumstance for Mr. Smith that another patient, of the name of Johnson, who is since dead, also complained that he had been ill-treated by him about the same time that poor Cottingham was possessed with the idea that his bones had been broken. However, as the surgeon, when called in, could discover no injuries, a "tub bedstead," in which the deceased lay, was found guilty; as was, also, one at Grove-house, Bow, of causing those fractures which had been unjustly attributed to the brutality of the keeper.

Admitting that the facts which were elicited at the inquest contained the truth, the *whole* truth, and *nothing* but the truth, we cannot help arriving at the conclusion, that there is much mismanagement in the Lincoln Asylum, although there the old practice of restraint by strait waistcoats and heavy irons has been very properly abolished. We should like to know how it came to pass that this poor man who, according to the witnesses, was in a dying state two or three days prior to his death, was left in such a manner as to be the means of inflicting severe injuries on himself, and which were not discovered by the surgeon till the autopsy. We should wish still further to be informed by what means a "tub bedstead" could break three ribs on the *left* side, and two on the *right*, near the spine. It is usual in the case of an injury from a fall, producing fracture, to find it only near the part which comes in contact with the external substance producing the injury; but here are fractures on *both* sides of the chest of yielding bones, so that the one concussion could scarcely have been the means of producing two distinct injuries at a distance from each other; especially as the dying man must have been so little affected with his fall as to be able to get over the elevated sides of the bedstead and lie down. Mr. Walah, the house-surgeon, speaks only of *four* broken ribs, and says nothing of their different situations. Mr. Broadbent affords us more information when he tells us of *five*, three on one side of the chest and two on the other. The verdict of the jury is what is called an open one—that is, the matter is left just as it was found; it is as follows:—"That the deceased, from the evidence, stated some weeks back that his ribs had been broke by an attendant; that the house-surgeon, upon this being reported to him, examined the deceased and found that he had no ribs broken; that upon a *post-mortem* examination it was found that the deceased had five ribs broken, but there was no evidence to prove when, how, or by what means the fractures took place; but by the evidence of two medical men, the cause of death was not from the fracture of the ribs, but from disease and maniacal exhaustion."

The affair is not calculated to raise professional evidence or lunatic asylums in public estimation; and it goes far to prove that in the best-regulated institutions there are defects which the Government ought to see speedily remedied.

AN APOLOGY FOR A GOOD ACTION.

The assertion is a poor compliment to human nature—but history sustains its truth—there is no deed of virtue immortalized in our day that was not put on its defence as a crime in its own. It is part of the consistency of evil that ill-organized heads should be as busy in the accusation of right as in the accomplishment of wrong; and from the moment such persons are by a low code of feeling or morality placed in the ascendant, the worst defence is a good conscience, and the greatest crime a worthy action.

We suffer under this law of history like others. At this moment there are actually persons in paroxysms of anger and indignation at our good behaviour to the poor-law doctors. Once a week regularly does that unfortunate merit win us a whole litany of obstreperous vituperation. Our criminality seems to have past endurance the moment we lent the right hand of support to the oppressed union surgeons. We could not have fared worse had we killed some unfortunate *savant*, burnt a house or two, or, tasking probability to the utmost, played the part of hangman in ordinary.

Unconscious criminals—malefactors whose consciences know no reproach—we involuntarily turn round and ask, with all the innocence we are *not* accused of, What, then, have we done? in what have we so sinned? Just this. For months and years we saw union surgeons under a bondage almost Egyptian; and, after many expressions of our opinion, the time being propitious, at length resolved on more active intervention. We obtained a free vent for their suppressed murmurs; a binding chain for their dissevered sympathies; we put man in communion with man, bound scattered forces into one aggregation, and, while showing how all might work best together for a common benefit, presented a gentleman—when week after week none others offered—who at length consented to be the toilsome messenger of their mutual behests in initiating, as their instrument, the movement that all called for, but none undertook.

An honest, open work, done in an honest, open fashion, is, of course, not enough for the exalted purity of your canonist of "The Newgate Calendar." Such profound authorities are learned in "motives;" and, as they can afford to let none be better than their own, ours occupy, of course, with them no very creditable level. Miserable men! who do not know that right is an attraction and a joy, and that to do a duty is itself an all-sufficient reward. It is almost the only reward medical journalism offers in all phases; and certainly herein is all that can, or will, or shall arise from our humble labours. Mean, contemptible, and silly—as well-known precedents show—are all attempts of newspapers to hang like ragged urchins behind other people's vehicles, or to make great movements play secondary parts to small matters of private merchandise: essentially different enterprises should rest for their support on their own independent and separate foundations: and perish for ever the *Medical Times* rather than that for one moment, losing its independence, it should live as the exhausting parasite or oppressive dictator of organizations professedly public!

GENERAL MEDICAL ANNUITY FUND.

TO THE MEDICAL PROFESSION THROUGHOUT THE UNITED KINGDOM.

Gentlemen,—I deem it expedient, after our two years' labour in the glorious cause of humanity, and while the statistics of our proceedings are fresh and fairly developed before you, to again address you, to again enlist your sympathy and assistance, and once more to obtrude the pressing emergency of a cause which speaks alike to your heads and to your hearts.

It would be a work of supererogation, with not a little of tautology, were I to run over the many reasons for the establishment of this institution; you will find them scattered throughout every paper which I have written upon the subject, and which I have published not only in separate and distinct forms, but in the pages of nearly all the leading medical periodicals. Every day brings fresh cause for energy and perseverance; some new fact full of painful interest is constantly presenting itself; so that to be indolent and lukewarm would neutralize all I have done, and be fatal to the accomplishment of that object, to the final settlement of which I devote the remnant of my existence, and the exercise of every talent and ability I may possess.

Although I am in possession, through the kind information of my correspondents, of many cases of destitution amongst the families of departed worthies in our profession, I have not presumed to excite your feelings by personal reference—I have not indelicately thrust upon your notice that which was committed to my keeping in private communications—or I could "a tale unfold whose lightest words would harrow up your souls;" yet is there one case now so prominently before the public that I cannot be thought impertinent or out of place if I constitute it a text for a somewhat lengthened commentary. I allude to the lamented death of Mr. Walker, of Manchester. I need scarcely dwell upon the merits of that gentleman; his value is appreciated by his professional associates, who, despising all rivalry, all weak and paltry jealousy, and every spirit inimical to the growth of brotherly love (alas! too rife in our profession, the curse of our otherwise beneficent calling!) have with one accord held his virtues for our admiration, and his high professional acquirements as a spur to our own industry, and as an additional cause for our lamentations; but they have coupled this commemoration of his virtue and his talent with

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the awful intelligence of a fallen family, a widow and fatherless children, rendered wholly destitute by this afflicting visitation.

It is said that talent and industry joined to good conduct are certain to obtain for their possessors wealth and distinction, that these qualifications must command extensive employment and, consequently, large emolument; but in our profession it must presuppose length of days, ample and extended scope, sure patronage, and ready payment.

I am not prepared to say what might be the extent of the practice of this lamented gentleman, and how far that practice was of a remunerative kind; we know from his published labours that he deserved support, and we are ready to testify that ophthalmic surgery lost in him a valuable and erudite professor. But for all this, the flat which bade this great and good man pass into the invisible and eternal world opened the doors of his earthly home to the squalid forms of Poverty and Destitution!

And now what are you doing to avert the calamities which these fiends necessarily entail? Appealing to the humane and charitable to assist by their contributions the widow and the orphans; and you do well, in the absence of any better mode of support. But oh! had the co-operating fund which I have so strenuously urged upon the profession been in that full exercise which it ought to have been, after the first suggestion of Dr. Percival, now nearly fifty years ago, what a magnificent provision would have been afforded to the bereaved widow and poor destitute orphans! Think, if the 20,000 or 30,000 medical practitioners of the united kingdom had for fifty years been pouring their annual guineas into the treasury of a self-supporting institution such as I am now feebly advocating, what a vast amount of human misery would have been averted; what sin and evil, generally consequent upon fallen fortunes, would have been prevented; and how much of mental agony and distress would have received the unction of sympathy and care! Oh! my heart bleeds when I look upon these shadows of the past, and think by what a small effort they might have been dispersed.

Gentlemen, it is never too late to mend. I have said it, and it was once controverted; but I say it again, and I defy all the sophistry of the earth to controvert its truth:—"We have been criminally negligent in this matter;" we have overlooked our own homes, and spent our philanthropy upon the stranger. We have shut our hearts to the cries of our brethren, but have opened them to those who are not of our household. It is a blot; it is a stain; but let us resemble the noble of Brittany, who, forced to the exercise of a mean employment to sustain his tottering house, found, after the elapse of years, one spot of rust upon his sword; he dropped a tear upon it, and as he sheathed it said, "I will find some other way to rub it out." There is a blot upon our escutcheon; find a way to rub it out! The institution now established, and which perhaps may owe its present position to my humble endeavours, comes at this time upon your notice without any extrinsic protection. When first promulgated, and up to the last meeting of the Provincial Association, it appeared before you as a portion of that important society. Circumstances which it is unnecessary again to repeat severed that connection, and it has now assumed a purely independent character, willing to stand or fall on its own merits; like truth, in its pure and native simplicity, it has been stripped of adventitious ornament, and claims your protection on its own intrinsic value.

Is it necessary to ask you, as professional men, whether, considering your acquirements, your position in society is as it ought to be; whether the amount of remuneration for your services equals the duties you have to perform; or whether those onerous and painful duties are estimated by the public in an equal ratio with the duties of other men, who neither experience your anxiety nor are subjected to your privations? Have you not in a peculiar manner been the objects of systematic oppression, and your public services either claimed as a right or paid for in a manner which would disgrace a gentleman's butler? Look through the advertising columns of any public print, and there will be found ample replies to these queries!

Is there scope for the acquisition of wealth in the practice of our profession equal to the opportunities afforded to the merchant or the tradesman? Does our calling enable us to speculate with capital, if we possess it, like other occupations? You know that you are permanently fixed to the circle of your practice like mill horses, and cannot quit your post, even to advantage yourselves in matters unconnected with your profession, without endangering a business which may, perhaps, have cost you half a life to acquire. Again, are you paid for your services willingly, as the tradesman or the mechanic? Your debts are generally the last upon the list for payment, and are usually liquidated grudgingly; but few are grateful for the vast and important services you have rendered; the majority accept them as matters of course, and think no more about it. From all this, I conclude that, although your profession has the marks of gentility about it, and men touch their beavers to you in token of respect, yet the probate for your last will and testament is not an overwhelming item in your executors' expenses.

That men have acquired wealth in the exercise of our profession is very true, but, compared with the aggregate, they are a very small minority; nor have we the chance, as in other professions, of rising by extraordinary merit. Unlike the law, and unlike the church, there are no state mantles to cover us; no snug sinecure homes with vines and figtrees under which we may shelter our forms when the sun of our existence is temperately setting. Then who are the judges of merit in professional men? Not crowns nor coronets, lordlings or legislators, for the annals of charlatanism are rife with the patronage of the great.

The extreme high or the extreme low are the best supporters of quackery. The middle classes are the intelligent practitioners' best supporters, although they occasionally become inoculated with some popular absurdity, and are led aside from their usual sober thinking and wise precautions. The age is not sufficiently advanced in intellect to discover an analyzing *menstrua* for true talent, or a test for the detection of a spurious material; hence it is that the scientific and practical man, who starts into life without capital or patronage, finds the hopes and expectations of his early career nipped in their first buddings; a fiery and scorching spirit breathes its withering influence over him; the blooming petals of his opening genius, which promised a beautiful expansion, remain and perish on their calyx, while the sere leaf of poverty and neglect disfigure the promise of a flower.

"Full many a flower is born to blush unseen,
And waste its sweetness in the desert air."

I do not think I have exaggerated in the least the anomalous condition of the great majority of medical men; and although the duties we have to perform are often of a public character, and dangerous to life as the strife and fury of the battle-field, yet we have no kindly assistance from Government in the way of pension, except in a military capacity, should disease or calamity overtake us. The rough and uneducated soldier receives the protection of the state if he suffer in the service; while the accomplished practitioner, whose combat through life is with more insidious enemies than opposing armies—enemies who enter the camp beneath the wings of the destroying angel, noiseless and invisible, raging "at noonday," and spreading more devastating influences, more deep and agonizing terror, than even fire or sword—is called upon single handed to wage war with them. There can be no cessation to his toil, for his mind, his body, nay, his very soul is exercised in the fearful struggle. What, then, is the end of the contest? It may be that he quits the ordeal unscathed, and it may be that the poison of pestilence has infused its venom into his overwrought and excited system: he falls beneath the glance of the winged messenger of death, and crumbles his earthly dust unheeded and unknown, except to those who were dependent on his exertions.

Alas! how many in the annals of professional history have thus fallen "blessed martyrs."

Gentlemen, I do not present these facts before you because you want enlightenment; no, you cannot fail to be as sensible of them as I am; but while you are ready to admit the truth, you have not been equally ready to respond to a remedy.

I have charged you with apathy in matters concerning your own interest, and the interest of those who are near and dear to you; peradventure I have been hasty in this conclusion, and you only needed a tangible project, well digested, and properly brought before you, to rally round it.

My last appeal was well responded to: nearly forty gentlemen voluntarily offered their services as honorary local secretaries, and they are now furnished with the necessary documents for the assumption of their duties. May He who is the God of the widow and the fatherless assist them in their laudable undertaking! You I would remind of an old and trite maxim, "God helps them who help themselves." I entreat you, then, to forget all I have said on laws or governments; tardy as they ever have been, and I fear ever will be, in doing you justice, forget your claims for consideration upon a country barbarous in its judgment of your value and importance, and, with combined energy and zeal, show to the public that, while you are humane and considerate in the exercise of your duties to them, you are not backward in fulfilling a Christain's duty, "providing for the household of faith;" in other words, that you are ready to assist in securing to your brethren a refuge in need, and to their widows and orphans the only solace you can bestow.

I have told you often, and I reiterate the statement, that my object is not so much to propound my own views, as to secure the combined intelligence of the many in the establishment of a project which shall be as free from fault as any human project can be.

Whether what I have propounded is calculated to meet acknowledged wants, does not at this moment require my own individual allegation, for the proposition has received the enlightened judgment of wiser men than I am. I have been flattered by their combined opinion, that the principles I have advocated are worthy of your consideration; but do not on this account relax one moment in the most searching inquiry, nor be backward in furnishing me with your objections and advice, for I would fain establish an institution as free from defect as possible, and containing within itself the principle of a never-ending vitality, and capable in its effects of removing every painful position to which either ourselves, our wives, or our children may be subjected.

I have the honour to remain, Gentlemen,
Your faithful servant,
EDWARD DANIELL,

Newport Pagnell, Aug. 5.

POOR-LAW CONVENTION.

Mr. Daniell has addressed the following letter to the Council of the National Institute:—

Newport Pagnell, Sept. 14,

GENTLEMEN,—I regret that my professional engagements prevent me the pleasure of attending the meeting of the Council of the National Institute on Wednesday next; but I trust to be privileged on another occasion to add my mite to the labours of those gentlemen, whose indefatigable exertions on behalf of the general practitioner entitle them to our warmest admiration and regard; and I regret it, also, that I am unable, on the first meeting of the new council, to personally express my sense of the honour conferred upon me by being elected one of your associates.

Your vice-president and my worthy and excellent friend Mr. Martin informs me that one subject of your deliberation will be the question of remuneration to the medical officers of the

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poor-law unions, with a view to a suitable representation to the Government, of the low standard of payment allowed for their services; a subject, in my opinion, of such vast importance, that I may, perhaps, be pardoned in urging you to give it your best consideration. If it were possible to furnish you with an epitome of all that has been said and written upon this subject, there would be but little time for the discussion of other matters, so severely have the profession suffered by the iniquitous and degrading parsimony of the poor-law authorities. Being myself a medical officer, I may be permitted to point out some of the evils which necessarily result from the present system.

Men of rank and attainment in the profession will not engage in the service, hence the poor are deprived of able and efficient advisers. It is an absurd and wicked notion, although propounded by men in authority, that young surgeons fresh from the hospitals are equally qualified for attendance upon the sick with those whose age and experience have secured the confidence of the public. The science of medicine may be acquired in the study, but its practical application and the true knowledge of disease by the bedside of the patient, and only by patient observation and the reiterated lessons of experience.

If venal men, whose only aim is personal aggrandisement, receive these appointments, the poor suffer for want of proper remedies; attendance may be exacted, but the medical officer pleases himself what kind of medicine he sends his patients; and, as he is without a high standard of moral principle, he will follow the depraved usages of a selfish community, and give *that which costs the least.*

On the other hand, if men of true principle are appointed—men who are anxious to do right in the sight of God as well as men, from a conviction that they are accountable beings, and answerable for their deeds before a higher tribunal than a board of guardians—if such men become medical officers of a union, the poor are cared for, but it is at the sacrifice of their own means, and to the gross injury of their families. But in the first case the miserable and parsimonious contractors suffer in pocket what the poor suffer in constitution—their disorders are cruelly protracted, and thus the pressure upon the poor-rates to furnish sustenance far exceeds what a liberal payment to an upright medical officer would inflict.

In the second case a worthy and excellent individual is compelled to struggle with pecuniary difficulties, be exposed to dangerous and malignant diseases, to breathe putrid and poisonous atmospheres, spend his time and talents in the haunts of destitution and misery, and at the end of the year finds himself considerably minus even in the value of the medicine he has administered. Such, I declare solemnly, has been my lot, and I have proved the truth of the statement several times before the board of guardians in my locality.

Now, to remedy the evil, medical remuneration should not be left to local "boards"—they are wholly incompetent to the question. All should be systematically settled by the Government; and there are *now* sufficient grounds for such legislation, because Government pays half the salaries of the medical officers. If there be any difficulty in arriving at a just conclusion as to what ought to be an adequate payment for medical services, let them consult the tables of sickness and mortality, and form their calculations fairly from those returns.

Neison, in his "Vital Statistics," has this remarkable passage:—"Suppose a medical practitioner to have within the circle of his patients one thousand persons, whose ages vary from twenty-one to seventy years, and equally spread over that term of life, according to the results here given, he ought to expect 274 of them to be on his sick list during the course of a year; that they would experience 2430 weeks' sickness in the aggregate, and that there would be about sixteen deaths out of that number in the same time; and, presuming that he were to visit each patient every alternate day, it would produce 8505 visits in the course of the year, or about twenty-three visits daily. Societies and many other public bodies adopt a practice of paying an annual sum for medical attendance and advice; and it will thus be seen that means are available by which to calculate the probable amount of labour and time that may be required for the discharge of such engagements."

It is very likely that these calculations will vary in different districts—in rural and manufacturing counties; but one thing is certain, that a tolerably accurate calculation might be made on statistical principles, and something like fairness might be adopted towards the medical officers—superior, at all events, to the mean, grinding, guess-work system at the present practised.

Should there be a public meeting in London of the union doctors, I shall certainly consider it my duty to attend.

I have the honour to be, Gentlemen,
Your faithful and obliged servant,
EDWARD DANIELL.

To the Council of the National Institute.

POOR-LAW MEDICAL REMUNERATION.

(From the *Provincial Medical and Surgical Journal.*)

There is a point beyond which the farther endurance of burdens and injuries oft repeated becomes intolerable, and where resistance, once fully roused, can scarcely fail to bring relief. To this point we think the contumely and neglect with which the just claims and remonstrances of the medical officers of unions have been systematically received, are rapidly tending to, and at last working out, their own remedy. The fractional weight has been added to the load which renders it no longer bearable—the last drop of water which causes the cup to overflow. However boards of guardians may strive to force from their medical officers the utmost complement of service, for the lowest amount of salary—and however the weakness, or apathy, or both, of poor-law commissioners may for a time suppress the demands for relief, a period must come (we trust it is now come) when the grievances of the union officers, so long unattended to, will be at length redressed.

We have before us a statistical document, furnished by Mr. F. S. Garlick, medical officer for the Halifax district. It is a summary of the visits and medicines supplied to the poor-law patients of the district during the quarter just ended. The area of the district is 990 acres; the population 19,981. The number of fresh orders received from the relieving officer during the quarter was 186, averaging 14·3 new cases per week; the number of visits paid was 685, averaging 50 per week, or deducting the last two weeks of the period when Mr. Garlick was ill from fever, and able only partially to attend to his duties, and drawing the average from the first eleven weeks, 58 per week. The medicines and appliances supplied during the period, mixtures, pills, powders, &c., each of which requires time and attention to prepare, leaving expense out of the question, were 4070, or 313 weekly. Now, the amount of salary awarded for this expenditure of time and funds, and for the medical skill which directs them, is twenty pounds; or one pound ten shillings and ninepence per week (4s. 4½d. per day), for taking charge of upwards of 14 fresh cases, preparing and giving 313 medicines, &c., and paying 58 visits, in "courts, lanes, alleys, cellars, garrets, and crowded lodging-houses—places which baffle all description, but which may truly be pronounced sinks of misery, filth, and destitution;" and we may add, from fatal experience, sources of malignant infection, in seasons of epidemic disease, which expose the medical officer to almost certain attack, and too often to the sacrifice of life itself.

Such is a simple statement of the facts of the case, certainly not an exaggerated one, and we only want a few more such reports as those drawn up by Mr. Garlick, from other towns and districts in different parts of the country, to render manifest by incontrovertible evidence the extent of the evil.

The pressure of this evil has long been endured; it is now, we trust, working out a remedy, and among the first effective steps to its removal must be the bringing together of the medical officers of unions. A requisition, headed by the committee appointed at the anniversary of the Provincial Medical and Surgical Association, at Derby, in August last, for holding a general meeting in London, will be found in another part of this number; and we trust that all those who take interest in this question, and are able to attend, will make a point of doing so. This meeting, to be really effective, should be numerous, and deputations should be sent from different districts throughout the country. We earnestly beg the attention of the members of the Association, and others of our readers, to this point; but the union medical officers must not stop here. District meetings at each county or central town should also be held, that those who have not the opportunity of attending the meeting in the metropolis may strengthen with their aid the efforts of their brethren. Let them come prepared also with such documents as those furnished by Mr. Garlick—the records of their poor-law practice for the last quarter; and, backed by such evidence, their remonstrances cannot fail of impressing the Government and the Legislature, and, we will fain hope, the entire country.

INJUSTICE TO POOR-LAW SURGEONS.

[To the Editor of the Medical Times.]

SIR,—The interest you have invariably manifested in advocating the claims of medical men attached to unions, induces me to draw your attention to the Art. 177 of the General Consolidated Order, of the 24th of July last, especially in reference to the comparatively few classes of accidents and operations that come within the terms thereof; and, as the poor-law commission is about to be remodelled, I think the present not an unfitting time to expose the injustice we experience under its present form. Now, in common justice to the profession, I would ask, is not the exclusion of such cases as fracture of the skull (a), pelvis, jaw-bone, &c., with concussion and compression of the brain, demanding daily, nay, almost hourly, watching, perfectly unreasonable and absurd?

Again, I consider it very inconsistent that, if any of the accidents or operations specified in Art. 177 take place in the workhouse, no remuneration is allowed. It is not long since I removed a cancer from the breast of a female in the Northleach workhouse; and still more recently a case of fracture of the scapula, or bladebone, occurred in my district, which caused me infinitely more trouble than a simple fractured arm; and yet, after both these cases being referred to the commissioners, no extra fee for either was obtained.

No difference is made in the rate of payment as regards distance, whether a fracture or dislocation happen within a hundred yards of your surgery door, or five or six miles off.

If, with these facts before you, it is in your power, as editor of a widely-circulated and influential journal, to assist in remedying the existing evils, you will be conferring a great and, I trust, lasting boon to the profession.

I am, Sir, your obedient servant,
JOHN RALPH BEDWELL.

Northleach, Oct. 18.

POOR-LAW MEDICAL RELIEF.

[To the Editor of the Medical Times.]

SIR,—As extra-medical officers under the poor-

(a) The operation of trephining for fractured skull was included in the medical order issued in 1842.

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law system, and being now personally disinterested in the matter, by having relinquished general practice for that of the physician, I offer the following remarks for the consideration of those who take an interest in the success of the Convention fixed for the 27th inst. The facts which will then be elicted, I doubt not, will establish the four following points:—

1. That the present system acts with great injustice to the poor.

2. That it is one of those false economies which defeat their own objects, and that in its ultimate results throws many an additional burden on the rates.

3. That it is an unmitigated injury to the medical man, compelling him either to rob himself and his family, or to defraud his poor patients; degrading him in his own esteem and in that of the public.

4. That boards of guardians and other local authorities are totally unfit to have any voice in the election, or any controlling power over the actions and conduct, of medical officers.

The establishment of these positions and the facts concerning them will be of no service unless they are well made known, and made to be felt; and for this object I write this letter, to recommend that they be drawn up in a pithy, forcible style, as short as efficiency will permit, and a copy forwarded to each member of the Government, to every peer, and to every member of the House of Commons, to the editors of every journal of repute, to each poor-law commissioner and assistant-commissioner, and to the chairman of every board of guardians. Let every union surgeon also have a few copies for distribution amongst persons of influence and standing in his neighbourhood. Let strong memorials upon the subject be also presented to the Premier, Home Secretary, and Lord Morpeth; and let a deputation be appointed to wait upon them and urge as strenuously as possible a sweeping reform of the whole system of pauper medical relief. I will not attempt to lay down what these reforms should be; the united wisdom of the Convention will be better able to deal with that part of the subject; and my own views are such as I do not think calculated at present to meet with favour in a practical point of view, but, as it can do no injury to make them known, I will briefly state that I should like to see the sanitary question combined with it, and instead of a mere Health of Towns Bill, a National Health Bill. There is no small village in the kingdom in which some supervision is not desirable: for this purpose the medical attendants of the poor should be paid by the Government, and sufficiently to support them respectably; be free from private practice, and combine with their other duties those of public officers of health; and as, by doing all in their power for the sanitary condition of their districts, they would lessen their labours as medical attendants of the poor, duty and interest would be combined, and would not be interfered with by the influences private practice is apt to exert in favour of particular individuals. They should make weekly returns, as now, to the boards of guardians, for the purposes of relief; and periodical returns of all matters concerning their avocations to a class of superintendents, of whom one to each county, or even fewer, would suffice, whose office should be to arrange and analyze these reports for a central board in London; to carry out the desires of such central board; to see that the officers under them discharged their duties properly; to take cognizance of complaints, and, when necessary, to institute public inquiries into them; and to perform such other offices as could be reasonably required of them as superintendents of public health and pauper medical relief; and thus, with the central board in London, would be organized a complete system of medical police for all practical purposes.

Your constant reader,

Southampton, Oct. 12. EDWIN WIRE, M.D.

Dr. William Henry Elliot has been unanimously elected Physician to the Exeter Dispensary.

THE PRESCOT UNION.

At a meeting of the following gentlemen—Mr. Alty, Prescot; Mr. Blundell, St. Helen's; Mr. Pearson, Woolton; Mr. Greenup, Farnworth; Mr. Elston, Rainford—the poor-law medical officers of the Prescot Union, held this 13th day of October, 1847, to take into consideration the necessity of joining the General Convention of Poor-law Medical Officers, to be held in London on the 27th inst., to adopt measures to bring forward the grievances of the whole body before the Secretary of State for the Home Department, in order to obtain redress;

Mr. Pearson was called to the chair, and having read several leading articles of the *Medical Times*, and stated at some length the objects of the meeting, the following resolutions were passed:—

Moved by Mr. Alty, of Prescot; seconded by Mr. Elston, of Rainford:

1. "That this meeting considers the present salaries paid to the medical officers of this union unequal and inadequate, and unanimously think that steps ought to be taken to remedy the evil."

Moved by Mr. Blundell, of St. Helen's; seconded by Mr. Elston, of Rainford:

2. "That increased remuneration having been refused to the district officers, notwithstanding the greatly increased duties which some of them had to perform during the prevalence of fever and distress, especially in St. Helen's and Woolton; and inasmuch as the board of guardians granted a bonus (but a very inadequate one) to the medical officer residing in their own town, but refused to grant anything extra to the district officers; they therefore feel themselves treated with *inequality* and *injustice*, and beg to have their grievances made known through the General Convention to the commissioners and Secretary of State for the Home Department."

Moved by Mr. Greenup, of Farnworth; seconded by Mr. Blundell, of St. Helen's:

3. "That this meeting agrees to forward a memorial to the General Convention to be held in London on the 27th inst., and that we unanimously request Mr. Pearson to attend the Convention as our delegate, to present the same."

Proposed by Mr. Pearson—"That the best thanks of this meeting be given to the Editor of the *Medical Times* for his strenuous exertions and able advocacy of the interests of the profession."—Unanimous.

Mr. Pearson having acquiesced to the wishes the meeting, Mr. Blundell proposed a vote of thanks, in which the gentlemen most cordially agreed.

THE THAME UNION.

At a meeting of the medical officers of the Thame Union, held on the 14th inst., at the Spread Eagle; Thomas Hugh Hastings, Esq., in the chair; the following resolutions were unanimously adopted:—

Proposed by Mr. Kempton, of Stadhampton; seconded by Mr. Lee, of Thame:

"That this meeting pledges itself to support the 'Convention of Poor-law Doctors' about to assemble in London, for the purpose of securing more adequate and just remuneration to the union medical officers throughout this country."

Proposed by Mr. Knight, of Brill; seconded by Mr. Hastings, of Stokenchurch:

Resolved—"That this meeting, considering the great increase of the general population, and the still greater increase in pauperism, and the increased facility with which any person in at all needy circumstances can obtain a medical order, and the consequent great addition which has lately been made, and which, in every probability, will continue to be made, to the labours of union medical officers, under a specific salary per annum, believes that the only equitable mode of contracting for medical attendance is a per-case system of an adequate amount, when the annual remuneration would fluctuate in proportion to the increase or decrease of the time and labour absorbed."

Resolved—"That Mr. Lee, of Thame, be appointed delegate to attend the Convention of Poor-law Doctors, to be held in London on the 27th inst."

WYCOMBE UNION.

[To the Editor of the Medical Times.]

At a meeting of the medical officers of the Wycombe Union, held on the 10th instant, at the Red Lion, Wycombe; John Turner, Esq., in the chair; present, Dr. Holt, Mr. Colbourne, Mr. Turner, Mr. Rose, Mr. Warren, Mr. Hastings, Mr. Pophem, Mr. Drew; the following resolutions were unanimously adopted:—

Proposed by Mr. Hastings, Stokenchurch; seconded by Mr. Rose, Wycombe:

1. "That this meeting, representing the opinions of the medical officers of the Wycombe Union, deprecates the present inadequate salaries of medical officers sanctioned by the poor-law commissioners; and that this meeting further approves of the 'Convention of Poor-law Surgeons,' to be held on the 27th instant, at the Hanover-square Rooms, London."

Proposed by Mr. Rose, of Wycombe; seconded by Mr. Warren, of Risborough:

2. "That the recent reduction of fifteen per cent. of the general salary, on the part of the board of guardians, with a view to neutralize the provisions of the medical order of the poor-law commissioners in 1842, for remuneration in cases of fracture and surgical operations, is unjust and oppressive."

Resolved—"That this meeting delegates John Turner, Esq., to attend at the Convention above referred to, to represent the opinions and wishes of the medical officers of this union."

HARVEIAN MEDICAL SOCIETY OF LONDON.

At the last meeting of this society, held on Saturday, the 16th of October, the following gentlemen were elected the officers of the society for the current session 1847-48, being the seventeenth session of the society:—

Presidents—C. J. Hare, M.D.; J. E. Erichsen, Esq.

Treasurer—William Stroud, M.D.

Hon. Sec.—William Camps, M.D.

Council—W. D. Chowne, M.D.; J. G. Farber, Esq.; J. C. Langmore, Esq.

The ordinary meetings of the Harveian Medical Society are held on the first and third Saturdays in each month, from October to May inclusive, at eight o'clock P.M.

17, Edwards-street, Portman-square.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

MISCELLANEA.—In my opinion, apprenticeship should precede the professional education. If we take the case of a young man about to enter upon medical education, he goes into the house of a practitioner employed in a general line of practice, he sees the ordinary cases of disease, and becomes familiar with drugs and their properties, and their mode of preparing them; and in that way he gets a practical knowledge which he could not get in any university or great school. I think it desirable for him to get that practical knowledge before he enters the hospitals; he will not get it afterwards. Making such a regulation compulsory upon the general practitioners of this country tends to curtail their early general education, and, especially if for five years, it would encroach upon the time that ought to be devoted by the young man to general education.

PRELIMINARY EDUCATION.—I think that an improvement in the general preliminary education of all the country practitioners is desirable; in fact, the education and the amount of knowledge of the profession generally have been considerably increased since I became acquainted with it. The young men who come up from the

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country to attend the medical schools in London, come up in every different state of preparation. Speaking generally, one would wish to have a greater amount of preliminary education. The Apothecaries' Society, by the law, may give their certificate to a young man at the age of twenty-one, and that does not allow time for a good preliminary education, and for a sufficient amount of professional education. In point of fact I may say (which, of course, you will hear more completely from other witnesses), that about twenty-three is the average age; the law allows them to enter at twenty-one; but, if you take the age of the persons at the time they receive their licence from the Apothecaries' Society, they are at least twenty-three years of age on the average. The Apothecaries' Company requires such a degree of attendance at lectures, and such an amount of professional knowledge, that a young man cannot derive the full benefit from his medical studies unless he has had a good previous education.

Registration.—I have no objection to a proper mode of registration of the medical practitioners; but there is a proper mode of registration of medical practitioners at the present time. Annual lists are published by the College of Surgeons, by the College of Physicians, and by the Society of Apothecaries, of persons who have been examined by them, and have received their letters testimonial. With regard to enabling persons in the country, such as members of boards of guardians, to judge of the qualifications of persons educated in Scotland or in Ireland, it only gives negative evidence that they have not been educated in England; they know nothing further; those lists contain the names of all the persons who have been examined by the three bodies here. A registration should present the result of the laws relating to the medical profession; if you are to make a medical reform or a change of any description in the medical profession, you must first determine the classes of the profession, and their respective qualifications, and then your list must present the result of those arrangements; but it appears to me that it is putting the cart before the horse to make the registration first, and to make the medical reform afterwards. I think it desirable, if poor-law guardians labour under a difficulty, that some means should be adopted of enlightening them upon the point. I think that they would be enlightened by the registration of practitioners, as it at present exists. The difficulty presented is, that boards of guardians are not aware of the qualifications conferred in Scotland or Ireland, for example. So far as England goes, a registration can be easily made, which should include under one list all parties qualified to practise in England; the three examining bodies in London, the College of Physicians, the College of Surgeons, and the Society of Apothecaries, could with very little additional trouble convert their several lists into a general annual list, in which the particular qualification of each person should be set forth. I think that there would be no difficulty in obtaining from the Scotch and Irish colleges lists of persons who are qualified under their examinations, which might be either incorporated with the London list, or published with it as a separate catalogue. Such a publication would afford to all parties every necessary information respecting the education and qualifications of individual practitioners. The regulation of the medical profession is better left in the hands of the several governing bodies under the present state of things, unless we embark in a reorganization of the profession; and I found that opinion partly upon this circumstance, that the individuals belonging to those bodies are persons who, by their professional position and their experience, know most of the medical profession, and who, in fact, during a long course of years, have been constantly occupied with the subject of medical education; and the state of medical education, as compared with what it was some years ago, is very considerably improved. If we take the great schools of London, it would be hardly possible to introduce any material improvement in the arrangements for medical education; and if you were to create a board, or some general authority, I cannot tell what the effect might be of interfering with or disturbing those arrangements. If the Legislature of this country should leave it to those bodies to regulate their respective modes of education, I suppose that the Legislature will not presume that any body authorized by itself, and having power conferred by itself, would neglect the duty thus intrusted to it: the arrangements for medical education in London seem to me to be nearly perfect, and I speak in reference to those. If the plan which I have suggested were pursued, namely, that the three bodies in London should unite, and form a registration; then the College of Physicians, for example, and the College of Surgeons, might take the trouble (and I do not think it would be any great trouble) to procure from the colleges in Scotland and in Ireland a list of their graduates and licentiates. The lists might be published together, but it does not follow that all should be put on one list; for instance, those licensed to practise by the University of St. Andrew's might appear separately, and then persons who might so wish would be able to select a graduate of St. Andrew's. I think it would be unpleasant to have examinations by which the second examining body would have an opportunity of objecting to or disregarding the qualification conferred by the first; therefore, it would be necessary, under any arrangement, to take very great care that the course of education was of equal value in point of extent as regards the points embraced in it; so far as the subject would admit of it, the kind of examination should be equivalent. I would not wish to impose restrictions on persons of the highest character of talent finding their way to the metropolis, if they were so disposed. There are particular circumstances that may occasionally make it convenient for a person to receive his education partly or wholly in foreign countries, and parties are admitted for examination by the College of Surgeons and the College of Physicians on certificates or diplomas which they have received from those schools. As to a sufficient check, if we left the local authorities in each kingdom to examine or not to examine in those cases as they might think fit, of course every authority that is entitled to examine, lays down regulations respecting candidates' qualifications and age, and so on. I think it possible to combine the advantage of a constant interchange of men, educated in different countries, with perfect security for the equal education in each branch of the United Kingdom; the College of Surgeons will admit a person to examination if he presents a diploma or letters testimonial from a foreign university, requiring residence, and where the education is equivalent to that required of those educated in England.

Privileges of the College of Surgeons.—The college possesses a museum far surpassing all similar collections. The members possess the freest access and power of examination; they thus have the opportunity of acquiring the most accurate information on human anatomy and physiology, on the structure and functions of organized beings generally, on the changes caused by disease, and on various connected objects. They can attend the lectures delivered annually, in illustration of the museum, by persons of eminent talent and knowledge. The college has likewise collected an immense library, which is open every day to its members. They are exempted from serving on juries and parish offices. By the act relating to gaols, the diploma of the college is required as a qualification for the office of surgeon. Further, the diploma of the college is required in the case of surgeons to the poor-law unions, by order of the poor-law commissioners, and also of surgeons in the army and navy, under the regulations of those departments. The evil I apprehend from giving all the members of the college power in the management and control of the College of Surgeons is, that they amount to several thousands, and the college could not very conveniently hold the . It is likely they would not all attend, and the government would practically fall into the hands of the members residing in and near London. I think it probable that they would elect nearly the same persons that now constitute the governing body. I do not know whether they would or would not. If they were to elect the same persons as would be elected by the fellows, the result would be the same, and the thing would be safe; but I think a difficult result might ensue. I think it desirable to continue the separate examinations in England, Scotland, and Ireland. Supposing an eminent London physician or surgeon went, by some accident, to reside in Edinburgh, I do not think it desirable that he should undergo a second examination there; but I think that a person who had a qualification from the Scotch College of Physicians should become a member of the College of Physicians in London. I cannot state exactly what is the case at present. With respect to the College of Surgeons of Edinburgh, I am not prepared to say that that would be quite the fair thing; because the College of Surgeons of Edinburgh is different from the College of Surgeons of London: the College of Surgeons of Edinburgh is composed of general practitioners, and the College of Surgeons of London is composed of surgeons only. I would not apply to the Edinburgh surgeon coming here the same rule you would apply to a London surgeon going to Edinburgh. The cases are not quite analogous. The College of Surgeons of Edinburgh consists of persons corresponding with those who constitute the examining body of the Society of Apothecaries in London. The Edinburgh school of medicine stands high, unquestionably. The medical school of Glasgow I do not know much about. There is a curious body there, called the faculty of physicians and surgeons, with a limited local jurisdiction. I know nothing about that body. I do not mean to say that, generally speaking, the standard of medical education is higher in England than in Scotland. I do not mean to compare them, or to give any opinion on the subject. It is a point for the profession and the public to judge of. I think there is one pure surgeon in Scotland; there may be two or three, for what I know; but of one I am pretty confident. Pure surgeons in London are rather to be reckoned by scores than by hundreds. The standard of medical education has been increasing for the last forty years. The improvement has proceeded from the exertions of the medical officers and teachers of the hospitals, aided and supported by the governing bodies of those institutions. Supposing there were any legislative interference as regards the law which requires the examination of any college in any of the three countries, I do not know whether medical education would go on increasing. One cannot foretel what the effect of a total change would be; at least I do not feel myself able to do so. I know that there has been a regular improvement; but that has been under the influence of the bodies to which examination has been intrusted. To meet the regulations of those bodies, longer study has been required, and the examinations have been more stringent. The public judge of the qualifications of medical men as well as they can.

(To be continued.)

Obituary.—On the 16th inst., after a short and severe illness, Robert Gibson, Esq., of Grove-street, Hackney, late battalion-surgeon of the Grenadier Guards, aged 63.—Sept. 21, T. Tucker Price, Esq., M.R.C.S., of Hereford.—Oct. 1, at Drumard, near Enniskillen, aged 38, Waller Dane, Esq., M.D.—Oct. 2, at Brookborough, of typhus fever, James Houghton, Esq., M.D., medical attendant of the Fever Hospital and Dispensary.—Oct. 3, at Belfast, of malignant fever, Alfred Anderson, Esq., aged 27, resident surgeon of the General Hospital.—Oct. 7, at Belfast, aged 67, David Moore, Esq., medical officer of quarantine.

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No. 422. **SUMMARY.** Oct. 30.

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COURSE OF CLINICAL SURGERY,

By JOHN F. SOUTH, Esq.,
Surgeon to St. Thomas's Hospital.

Lecture II.

HÆMATOCELE CONSEQUENT ON TAPPING HYDROCELE.

Richard Gamble, aged fifty-one, shoemaker, admitted into Luke's Ward, July 13, 1847. Spare, but healthy and temperate. Has had a hydrocele on the left side for the last nine years, which has been tapped eight or nine times without any untoward consequence, but has never been injected. Six weeks ago he fell down and hurt his right hip, but is not aware of having bruised the hydrocele, which was at that time distended. Ten days since, the swelling was tapped in the usual way; but on this occasion a large quantity of blood, as well as serum, was discharged. In about four days after the vaginal tunic had refilled and attained nearly its present size—that of a child's head of six months.

The skin of the scrotum is dusky red; the tumour heavy, and fluctuates, but is not transparent; it is very painful and tender, more especially on pressure in front and behind. He has also much pain in the belly and loins.

℞. Pulv. rhei c. hydr. ℈j. stat. V.S. scroto ad ℥viij. Lot. evap.

16. The tenderness of the swelling is diminished, and he is altogether more free from pain.

19. The tumour having undergone no material alteration as to size or appearance, it was determined to tap it and discharge the fluid contents, and afterwards to proceed as might appear necessary, the probability being that there was some clotted blood in the vaginal tunic, which might require further treatment.

The trochar and canula were introduced with a little difficulty; and the former having been withdrawn, a small quantity of high-coloured and very offensive fluid was discharged, without the bulk of the swelling having been much lessened. The canula was then taken out, a director passed into the cavity and upwards, and upon it a curved bistoury introduced, with which an opening of two or three inches from below upwards was made. Through this a further quantity of the same dark-coloured fluid, together with some broken clots, was discharged. The testicle was hidden by layers of coagulated blood, in some parts easily broken down and removed, but at other parts firm and not separable, and at once gluing the close portion of the vaginal tunic to its reflected portion, so as partially to destroy the cavity. The reflected tunic was much thickened, very tough, and of an almost cartilaginous feel. The cellular tissue of the scrotum over it, brawny. There was slight bleeding from a small arterial branch, divided in the incision, which, however, soon ceased. The cavity was then stuffed with lint, a poultice applied over the parts, and the scrotum supported by a pillow.

The result of this treatment was, as generally happens, very satisfactory, and requires little further notice. In the course of a few days the remaining unorganized clotted blood was discharged; suppuration followed, and the wound healed by granulation, producing a permanent (probably) cure of the hydrocele. The cellular tissue of the scrotum was freed of its brawny thickening, and the part became nearly of its ordinary bulk only. The man's general health improved considerably, and when discharged on Aug. 31 he was plump and well.

The case just read, though not a very remarkable one, still presents some points of practical interest, and is worth consideration. You must have noticed that the simple fact is stated of the man having had hydrocele for a number of years, and that it had been tapped several times. This was proof sufficient of the actual nature of the disease; and, therefore, it was unnecessary to have wasted time in detailing the diagnostic characters of the complaint.

It appears from the narration that time after time the palliative treatment of hydrocele had been employed, namely, that of simply tapping the distended vaginal tunic, and discharging its contents; and, as is generally the result of such practice, the hydrocele was reproduced again and again. The medical man, under whose care the patient placed himself, had probably some reason satisfactory to himself for preferring the palliative treatment to the radical cure; though, so far as could be ascertained, there was no sufficient cause for not attempting the latter. Neither the patient's constitutional appearance nor his age, at the time of his admission into the hospital, presented any obstacle to his treatment in such way as should permanently relieve him from his complaint. For there is generally little or no danger in the radical cure, provided the patient be in tolerable health, and not greatly advanced in age; and under neither of the opposite conditions to these was the subject of our present consideration.

It is stated that the hydrocele was repeatedly tapped; and probably, as nothing particular is mentioned, nothing extraordinary happened; the fluid was drawn off, the wound healed readily, and in the course of a short time the hydrocele, as usual, filled again. At the last operation, however, something unusual did occur: blood was discharged with the fluid from the sac, and in some quantity probably, or the patient would not have noticed it, as the frequent operations he had previously undergone must have shown him the usual result—two or three drops of blood on the penetration of the skin, and nothing more; and the swelling of the disease got rid of for a time, and only very slowly being reproduced. But on the last tapping there was more blood than usual; the vaginal tunic quickly filled; and, in the course of four days, had not only resumed its former size, but had even become as large as a child's head of six months old. This naturally led to his presumption of the operation not having been performed as previously; and when to this were added the pain in his loins; the redness and tenderness of the scrotum, which were on continual increase, it was not surprising that he should be induced to seek further assistance.

The known fact of the patient having been the subject of hydrocele, its repeated tappings, with the usual result of the immediate reduction of the swelling, and its slow reproduction; the unwonted bleeding after the last operation, and the quick reappearance of the swelling, which, in the course of four days, had exceeded its former size, and had become as large as the head of a six months' old child; these circumstances, together with the redness and tenderness of the scrotum, its less than ordinary elasticity and want of transparency, as in common hydrocele, led to the conclusion that the trochar had at the last operation wounded some vessel, and this probably in the testicle, or on the spermatic cord, whence blood had been poured into the vaginal tunic, from which it had passed by the canula, so long as that instrument was left in; and afterwards, when its escape was not so ready, it had continued collecting in the vaginal tunic till its quantity was sufficient to plug up or compress the bleeding vessel.

In this way the original hydrocele became converted into a hæmatocele, or collection of blood in the vaginal tunic of the testicle, which, though generally produced by a blow rupturing some vessel in the testicle or spermatic cord, or their coverings, can still more easily be produced by the infliction of a punctured wound as in this instance, with a trochar.

The injury produced in this case by the trochar gives the opportunity of slightly noticing the proper mode of using this instrument, which is too frequently very carelessly employed in tapping a hydrocele—so much so, indeed, that it is surprising accidents similar to the present do not more frequently happen. This is, however, the first case of the kind which I have seen, although, with many other teachers, I have often warned the students of its possible occurrence.

In introducing the trochar and canula into a hydrocele, care should always be taken that so soon as it can be felt by the cessation of resistance, that the trochar has penetrated the vaginal tunic, and fairly entered its point beyond the shoulder, and consequently has carried the end of the canula into the cavity of the tunic, the trochar should be gently drawn out of the canula, which is at the same time carefully pushed on till its hilt rest against the skin of the scrotum. Thus doing, it is scarcely possible to injure the testicle, unless it be unusually enlarged; and, therefore, there is little liability of hæmatocele being produced; but it is necessary that the canula should be completely introduced to ensure the satisfactory discharge of the fluid from the hydrocele, and at the same time to render the injection of the stimulant necessary for the radical cure of the disease sure, as well as to prevent the liability of its being thrown into the cellular tissue and producing enormous mischief.

In common cases of hæmatocele, the serum separated by the coagulation of the blood is soon absorbed, and the swelling of the vaginal tunic

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soon becomes solid and unyielding. But after a time, and under favouring circumstances, the absorbents set to work, the effused blood is taken up, and the parts are restored to their natural condition. This process may also be encouraged and hastened by medical treatment. Under untoward circumstances, however, a different result ensues: the effused blood, instead of lying quiet and being absorbed, acts as an extraneous substance, and excites irritation and ulcerative inflammation in the vaginal tunic, till an aperture be formed in it, which is a slow process, on account of the fibrous character of the tunic. Through this aperture the ill-conditioned blood, which is generally broken up and intermixed with ill-formed pus, is discharged. The whole proceeding, however, is very tedious, and the patient suffers severely from pain and irritative fever.

Now, in the present case it is probable that, before sufficient time had elapsed for the absorption of the serum separated by the coagulation of the blood, the vaginal tunic, already accustomed to secrete an excessive quantity of fluid, and thereby causing hydrocele, had poured out sufficient fluid to prevent the swelling becoming solid, as in ordinary hæmatocele. In this way the indistinct fluctuation observed in the case led to the presumption of the true state of things—namely, that it was a complication of hydrocele and hæmatocele.

Under these circumstances there would not have been any impropriety in at once puncturing the swelling, ascertaining the character of the fluid, and thereby attaining a more correct notion of the disease, by the colour of the fluid and by the bulk of the swelling remaining after its withdrawal. But as the time had been so short from the performance of the last operation, and the symptoms calling for more active treatment were not very urgent, I preferred endeavouring to diminish the inflammation and restoring the parts to their usual state of quiet, so that there should be only the hydrocele to treat, and, therefore, leeches and evaporating lotion were employed, and the bowels cleared out with a purgative powder.

The lotion was continued for six days, but no material change in the condition of the part as to its bulk or appearance having taken place, I determined on not waiting any longer, and accordingly introduced a trochar and canula at the part where fluctuation was most distinct. A small quantity of dark-coloured fluid was discharged, which, together with the bulk of the swelling being little reduced, led me to be pretty certain that there must be coagulated blood remaining, and partially filling the vaginal tunic. Now, it is very true that this coagulated blood might have remained quiet, and become in time absorbed in part, and in part organized. It was, however, on the contrary, more than probable that this would not be the case, but that the blood would neither be absorbed nor organized, and would become an irritant, and not rest till it had produced suppurative and ulcerative inflammation sufficient to make an aperture through the vaginal tunic and scrotal tegument for its discharge, which, as I have already mentioned, is a tedious, painful, and very troublesome process.

Under this impression, I considered it would be better at once to lay open the vaginal tunic freely, which would give the opportunity of ascertaining the condition of the clotted blood, and of removing it with the finger if it were merely contained in, without having become adherent to, the tunic; whether it were simply coagulated, or whether the coagulum had been broken up and mixed with pus, as commonly happens when the effused blood has determined to make its way out. Under either of these conditions the proper treatment would have been adopted, the intruder ejected, and the tunic would have fallen together and united, either by adhesion or granulation, according to circumstances. There would have been opportunity, also, of examining the condition of the testicle itself, and of ascertaining whether it were enlarged by disease, and whether it had assisted in the formation of the swelling. The only inconvenience accruing to the patient would be curing his hydrocele by the more severe treatment of incision instead of the milder one of injection.

A director was therefore introduced through the trochar wound into the vaginal tunic, and upon it the tunic and scrotal skin were divided to the extent of three inches. The cavity being thus exposed, coagulated blood was found adhering to the body of the testicle, and in some parts connecting the reflected to the close portion of the vaginal tunic; and this having probably began to be organized, and being pretty firm, was left. But other parts of the clot were broken up and loose, though not intermingled with pus; as much of this as could be easily removed with the finger was taken away, and the rest left to be cleared off by the suppuration which was sure to follow, and which was sought to be encouraged by the insertion of a piece of lint; and the lint served the further purpose of keeping the lips of the wound apart, so that the cavity would be compelled to fill up from the bottom before the aperture could close and, preventing the escape of the discharge, reproduce the same mischief.

The vaginal tunic, it will be remembered, is stated to have been thickened. This may have arisen from it having suffered the adhesive inflammation after the repeated tappings, or it may have been consequent on the severe inflammatory attack following the last operation. But in itself it is matter of no great consequence.

The remainder of the case presented no remarkable circumstances, and followed only the usual course of a hæmatocele which had existed for some time, and had been disposed to effect its own cure by irritating the vaginal tunic and causing it to ulcerate as already mentioned. The broken up and imperfectly adhering clot gradually separated, and granulations springing up and suppurating healed the wound by degrees, and the cure of both hæmatocele and hydrocele was effected together, and the scrotum and testicle resumed nearly their ordinary size, but with some remaining thickening of the cellular tissue.

CLINICAL OBSERVATIONS ON SOME OF THE MORE FREQUENT DISEASES OF CHILDREN.

By W. HUGHES WILLSHIRE, M.D. (Edin.), M.B.S., Physician to the Royal Infirmary for Children, &c.

(Continued from vol. 16, p. 565.)

GENTLEMEN,—In resuming the clinical remarks I ventured to offer you last session, on that important class of disorders, the maladies of children, I shall lay before you some observations connected with *diarrhœa*. This is an affection of constant occurrence in children, and of which you must have seen many examples during the last three months. Before passing to the subject in question, however, there are one or two general points to which I shall refer. Every malady may be said in one sense to be compounded of two great classes of phenomena, exemplifying themselves more or less intensely in relation to each other according to the particular disease. These phenomena are those of cause and effect, or, in other words, the *disease* and its *symptoms*. The body is labouring under a particular malady; there is disturbance, disarrangement of the structure or organic machinery of the frame. Such a body is sooner or later forced into the betrayal of such disarrangement by exhibiting certain swervings or aberrations from that series of functional phenomena we assume to be implied in the terms of *good health*. These swervings, &c., are the *symptoms* of a disease, and the organism in which they occur is said to be in *ill health*.

Now, a person suffering ill health or exhibiting morbid symptoms applies to us to be relieved from them. They trouble him, and he wishes them removed. We attend carefully to the nature of all the signs and symptoms he exhibits—the one series of phenomena—and endeavour, from our theoretical and experiential knowledge of pathology, to find out what kind of structural derangements must exist—the other series—and which have given rise to them. If we can do so we establish the diagnosis of the particular disease. Having attained this as satisfactorily as we can, we apply ourselves to remedy or remove this disease: we treat the structural derangements, the causes of the symptoms, instead of attempting to alleviate the latter alone. We battle with the "why and because."

In very many cases we are able at once, from the symptoms, to indicate their cause or diagnose the disease. We are able, also, having done that, to treat it successfully, and by that treatment to cause the symptoms to disappear. In other cases we can only accomplish the latter partially: the disease we can tell, but we cannot remove it; we can still, however, palliate the symptoms, if not effect a cure. There remain yet other instances in which, although there may exist a well-known series of symptoms, we are completely at a loss to associate them with their true structural disarrangement—their cause. Here we can alone treat the symptoms: sometimes, it is true, with considerable success, sometimes not; but still in many cases we can often treat these symptoms in some relation to a presumed or probable cause. Lastly, there will come before you examples in which a very prominent and serious symptom shall arise, and which symptom must be treated, and not its cause. In some of these latter cases the structural derangement is of such a character that it will itself yield from the treatment of its symptom.

These bring me now to the remark that the grand attempt of modern medicine has been beyond all other things to indicate the nature instead of the pathologic essence of disease, or to diagnose the causes of symptoms. Whilst our forefathers regarded an aggregate of certain symptoms as a disease, and bestowed upon it its name, we often refuse it this name, and bestow upon it another indicative of its cause. In using the term of the latter we still imply, however, that that aggregate of symptoms shall occur. Thus, in certain books you will find spoken of such diseases as infantile marasmus, remittent fever, water in the brain, white swelling, diarrhœa, &c. If you were to search in some modern works which I could name for a description of such maladies you would be unsuccessful in your search. You would but find them spoken of incidentally, or as a single symptom or series of symptoms, indicative, perhaps, but essentially different from what must be regarded as *the disease*. You would find instead, *tuberculous disease of the mesenteric glands*, of which "marasmus" is a symptomatic phenomenon; you would read of *gastro-enteritis*, of which "remittent fever" is the same. In lieu of "water on the brain" you would find *tuberculous meningitis*; and *scrofulous ulceration of articular cartilage* would dislodge "white swelling." In other instances, although the old name of the disorder, as indicated by symptoms, is still retained, the cause of them is indicated in another way, as by the affirming of "typhoid fever" to be *intestinal inflammation* or *dothenenteritis*, or "phlegmasia dolens" to be *inflammation of the iliac and femoral veins*. In such examples you see mere symptoms are disregarded, and structural derangements are pointed out, and which, we may presume, we are to consider as the disease, and which alone we are called upon to treat. In fact, the epigraph placed at the head of Legendre and Bailly's "Memoir on the Pneumonia of Children," "C'est par l'alteration des organes que l'on doit caracteriser et spécifier les maladies," states in few words the point to which modern medicine so strongly aims. That much that has been effected in this sense is of very great import, and has enabled us to consider and treat the misfortunes of humanity in a far more advantageous form and satisfactory manner than could be done before, is evident and true. But such has not *always* been the case, for it has now and then happened that what modern science has led us to consider and treat as the disease, or the cause of the symptoms, has been in reality not the disease at all, but has been a complication, or mere contingent phenomenon in the course of

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the malady, which latter is in truth something else. In many other cases, too, it must be confessed that it would have been far better in our present state of knowledge to have rested satisfied for the time with attending to the treatment of symptoms, since their cause or the real nature of the disease was but very dimly, if at all, seen.

This brings me, gentlemen, to the question I wished to arrive at, viz.: how am I to consider *diarrhœa?* Shall I view it and speak of it as a *disease*, or regard it but as the *symptom* of some well-defined organic or structural derangement, call this the disease, and speak to you about it? Or shall I treat of it in detail, as a *symptom*, and relate the symptoms of a symptom, which will be apparently so strange? Were you to refer to some of the works I before spoke of, instead of reading about diarrhœa as a disease, you would read of such affections as erythematous enteritis, entero-colitis, gastro-enteritis, follicular-enteritis, &c. &c., and of which you might find the diarrhœa spoken of as one of their symptoms: you would have it impressed upon you that it is always produced by some form of inflammation and its results of some or other portion of the gastro-intestinal apparatus. Some will limit this inflammation to the intestines, others will take in the stomach too; but whatever may be the lesional disturbance regarded by the writer as the cause of the diarrhœa, in fact the disease, it is endeavoured to be made out as constant, and the whole matter as plain as possible in the relation of cause and effect. If you read much about the subject, however, you would at length discover that there is more confusion with regard to the intestinal affections of children than in respect to anything else, not even excepting eruptions on the face and scalp. This has been chiefly brought about by the attempts of the ultra-morbid anatomists to associate diarrhœa with a constant lesion, or as always connected with some particular form of inflammation of that part of our frame to which I have alluded. Lately, even amongst the French writers, this error has been seen, and we are indebted to MM. Bouchut and Legendre for placing the matter in a better light. Even Rilliet and Barthez are obliged to confess that, after all their efforts to connect the symptoms with distinct anatomical lesions, they leave the chaos of intestinal maladies very obscure.

From the fact, gentlemen, that your advice will be constantly sought for to cure in children a too frequent and more or less altered condition of the alvine dejections, from this unhealthy action of the intestinal apparatus being often so important a feature that all attention must be paid to it, whatever complication may exist; and from the fact that diarrhœa may accompany or be produced by the most various conditions and alterations of the digestive mucous surface and its appendages, I shall raise this frequently-considered *symptom* up to the rank of a *disease*, and endow it itself with symptoms. The more important of these I shall consider, and then indicate to you those structural alterations which have been found in particular cases after death in the more severe forms of the malady. Of course, in every instance of diarrhœa, previous to the increased frequency or alteration of the dejections, some change or other in the mechanism, if I may so call it, by which healthy action is carried on, must have taken place, in order that the former may occur. But such change in one great class of cases is not as yet known to us by any well-marked modification of texture; the structural derangement is imperceptible, and we can consider the diarrhœa but as *functional* in character. In another class, it is true, we may be pretty sure of finding, after death, anatomical modifications of the intestinal tissues, &c., and with which we may associate the diarrhœa in the relation of cause and effect. Upon this point, however, I shall have more to say presently.

If you carefully observe some morning, in the infirmary, all those cases which are brought to you to be treated for diarrhœa, and although the alvine disturbance in all may demand your most careful attention, yet you will soon discover that there will be one great class of cases in which you will be disposed to view it as a *primary* malady—the disorder you will have specially to treat; and another in which you will have to regard it as a complication or sequence of something more fundamental, of another complaint. You might notice some morning in August, after a comparative lull as it were from a *prevalence* of the disorder, that half the children presented would be described as being "so bad in the bowels," many having no other complaint to speak of, and running about as if nothing particular was the matter; others would be somewhat reduced, having slight feverish symptoms, and keep the nurses' arms; whilst a few, and especially children still unweaned, would be very thin, weak, and pale, have higher febrile disturbance, or be even brought to the last extremity. Still, in all these cases, the prominent affection will be the *diarrhœa* — variable as it may be in all its relationships, and even combined, as you will afterwards see, with its own complications.

There will be another class of older children in whom the febrile disturbance is very high, the tongue loaded, the lips more or less cracked or retracted, the heat of skin and thirst very great, and much muscular debility existing. On inquiry of the mother, you will find that these symptoms have preceded the diarrhœa; or in other cases there has been much previous "malaise;" or that there has been previous constipation or vomiting. Others, again, will present to you the evidences of mesenteric disease, or of general tuberculosis; others will have an exanthem, or have had one already; and some children may afford the symptoms of typhoid fever. In the former division you will believe the disease to be *diarrhœa;* in the latter, something else, but of which the diarrhœa is an associated phenomenon: you will have two great forms, then, of the disorder, viz., *simple* and *associated*.

It is very true that, when you come to inquire into the *simple* forms of the affection, you will find that in many, difficult dentition, slight febrile cold, infantile dyspepsia, &c., are associated with the intestinal disturbance, or of which the latter is an effect. Still there is a broad line of distinction between such associations and the others I have alluded to, and, although we may sometimes find it difficult to express it in terms, yet in our practice we shall find we can generally avail ourselves of it. *Clinically* we know the thing, although it may be artificial, and not natural. At present I shall confine my attention to *simple unassociated diarrhœa*. I am aware that there will be great deficiencies in the observations I shall lay before you, but many of them you must lay to the difficulty and obscurity of the subject, and not to the want of endeavours upon my part. I may, in fact, say to you, as M. Trousseau said to his class when lecturing on the same disorder, "I feel myself in the dark with regard to many of the details, and do not, therefore, pretend to give you a completely satisfactory description, but merely to impart the little I do know of the matter."

You will see by the table before you the method I shall adopt in arranging the different forms of diarrhœa I shall speak to you of. Of those forms only under the head A, shall I at present treat. Those under B are left for another opportunity:—

A. Simple idiopathic or unassociated diarrhœa	Sympathetic or spasmodic diarrhœa.	
	Catarrhal diarrhœa	Serous type.
		Mucous type.
	Inflammatory diarrhœa of infants and young children.	
B. Complicated diarrhœa.	Of fever.	
	Of tuberculosis.	
	Of the exanthems.	
	Of the muco-enteritis of older children.	
	Of various other affections.	

You know that in the adult it often happens that, on compelling the stomach to receive an article of food it is not accustomed to, or which is otherwise detrimental, the peristaltic action of the intestines becomes increased or exaggerated; the dejections more frequent, rather loose, or more easily voided than is natural to the person. These are sometimes so slight that they scarcely attract notice; at other times they are more so, and disturb the patient. They are then often preceded by some degree of heartburn or flatulency, relieved when the bowels become relaxed, and the person soon gets well. Now, in these cases the stools are nearly normal and mostly of the usual colour; there is no increased secretion of serous or mucous matter to speak of, and but a slight deficiency or greater flow of fluid from the biliary or pancreatic ducts. It may happen that some amount of mucus is seen in which move numberless ascarides, or a few pieces of tænia are present, but these existed previously to the diarrhœa. Or, again, a person may get a slight cold, the bowels become rather lax, but the stools not much altered in character. In such instances as these what have we? Irritation, direct, reflex or sympathetic, applied to the muscular coat of the intestines, stimulating it to contraction and the more frequent discharging of that which it contracts upon. But, as I have said, the follicles and crypts of the intestine have not thrown out more serum or mucus; the gall ducts have not been greatly affected; the abdomen is not tender, there is no true griping; we have simply increased muscular action, with perhaps some slight biliary disturbance, and that is all. You will find that all I have told you of may happen to children in their second infancy, and to infants in the nurses' arms; in the child at the breast, if the mother has been frightened and the quality of the milk deranged, or if she has attempted to feed it either before she ought to do so, or too frequently, or with improper food. The bowels are stimulated to increased muscular action, or the stomach is irritated, and the irritation is conveyed lower down. The mother becomes calm again, or the food is discontinued or altered, and all is well. Or, again, a slight amount of cold or chill has been applied to the surface, or the feet have, in older children, become wet; instead of the locomotory or prehensile muscles becoming affected, or slight rheumatic pain produced, we have the fibres of the muscular coat of the bowels irritated, and slight diarrhœa ensues. Or, again, dentition is somewhat difficult, the irritation is extended or propagated to another portion of the digestive apparatus, and the like occurs. Or the stimulus resulting from irritation of numberles ascarides produces the same. In all these cases we may have frequent dejections; and, we believe, without there existing any inflammatory action of any portion of the bowels, or any marked super-secretion from their appendages. Should the child be killed by an accident, and the intestinal coats examined, what anatomical alteration should we find? Nothing; we have here examples of what I call *sympathetic* or *spasmodic diarrhœa*. That such examples should be abundantly frequent in the child you will not be surprised at, when you call to mind how delicate and sensitive is their intestinal apparatus; how liable to be irritated is the infant at the breast by anything harsher than the mild demulcent-like liquid intended for them by nature—the maternal milk.

Should any of the above exciting conditions be longer continued, or others I have presently to refer to, be applied, the *diarrhœa* will assume a different character. Or it may, at its very outbreak, be of another type altogether. Whatever this may be, the nature and aspect of the stools become often most materially altered, and assume a very different appearance to the homogeneous, semi-fluid, lightish yellow, and comparatively inoffensive dejections of the child at the breast; or to the deeper-coloured, more solid, and somewhat offensive or fæcal-like stools of elder children.

It behoves you, then, to pay great attention to the appearance of the stools, as they will be often

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of great avail for your diagnosis and treatment; but still the line can be drawn: there is no necessity for your adopting a "fussy medicine," such, at least, as is proposed when we are told that "le microscope seul peut-etre pourrait éclairer efficacement ces questions."

I cannot go quite to the extent of Rilliet, in believing that diarrhœa is to the lesions of the intestines that which expectoration is to the pulmonary lesions of the adult; for, although it be true that the mere inspection of the one will often afford a precise notion of the nature of the malady in the chest, it does not so frequently happen that the inspection of the other will afford a true key to the state of the intestinal tissues. It is true that, in the ejections from the latter, we may find mucous, serous, and purulent fluids, blood, gases, false membranes, and other things besides; and we may believe that, for the production of many of these, there must previously exist special structural alterations; but when you come to consider how materially the residue of the vast digestive and elaborative system is modified by many other things than the mere condition of the intestinal mucous lining, and, in so far as our practice goes, how constantly we may be deceived from the mingling of the urine with stools in the napkin of infants, and from their being altered by the action of drugs and chemicals, you will not be surprised at sometimes drawing a wrong conclusion as to what anatomical alteration may exist from the appearance of the stools alone. Even those who have most strongly urged the connection of certain forms of diarrhœa with particular lesions, unwittingly confess how they may be deceived. M. Bouchut, in his work, "Sur les Maladies des Nouveaux Nés," remarks—"Under the denomination of gastro-intestinal inflammation and typhoid fever, MM. Rilliet and Barthez state the results of their observations on affections of the digestive passages. The facts they adduce are very ably analyzed, and they hold that diarrhœa is subordinate to alterations of the structure of the intestines. Nevertheless, we find a very curious case given in their work, sufficient, I believe, to overthrow so exclusive an opinion, and to direct our attention to *catarrhal* diarrhœa. *A child died after exhibiting all the symptoms of acute entero-colitis. The digestive tube was in a state of perfect integrity from one end to the other.*

ORIGINAL CONTRIBUTIONS.

NOTICE OF CHOLERA AS IT APPEARED AT COLOMBO IN 1847.

(Section 8, Annual Report, 1848.)

By A. BROWNE, Esq., Surgeon, of 37th Regiment.

Cholera had prevailed in the 15th Regiment at Kandy for some time before it appeared in the garrison of Colombo; though there is daily communication between these towns by travellers, mails, and merchandise, and, had the disease been transmissible by such means, there was no obstacle to its advance on the capital. However, in the absence of all proof or probability of its introduction from without, I shall state briefly what is known with regard to its appearance in the 37th Regiment. The first case of cholera that had been observed in Colombo for several weeks occurred on the 18th of March, in a corporal of the corps, who had been on pass that day to the Pettah (or native town), where cholera was then unknown, and has not shown itself since. He had been drinking rather freely, and was brought to hospital about midnight, with the livid features, sunken eyes; cold clammy skin, shrivelled on the fingers; great restlessness; harsh, weak voice; small, feeble pulse; vomiting; serous purging; and cramps in the extremities, which characterize the collapse stage. He had been placed in bed in the middle of a large ward, containing thirty patients, and remained there until discharged, without communicating the disease to any of his neighbours. A milder case was received into the same ward on the 21st, and on the 25th discharged to duty. The next patient came from No. 33 barrack, on the east side of the fort, at six A.M. on the 7th of April, and was put into a small ward by himself, in order not to disturb others by his cries when suffering from cramps. In the afternoon an artilleryman from No. 1 barrack, on the west side of the fort, was brought to hospital and treated in the wards appropriated to the sick of his own corps, where he died in the evening. About nine P.M., a patient admitted on the 6th with dysentery in the large ward, from which the last of the cases treated in March had been discharged twelve days before, was seized with serous purging, and passed rapidly into the collapse stage. He was forthwith removed, bed and all, into the small ward beside the patient admitted in the morning, and died in eight hours. At midnight another patient with dysentery, also admitted on the 6th, on the opposite side of the same large ward, and forty feet distant from the foregoing case, was likewise seized with serous purging; and notwithstanding every one had been warned of the danger of such attacks, which are often very insidious from being attended with little pain; no alarm was raised until six A.M. on the 8th, when on rising from the close stool he fell senseless on the floor, and died in a few hours without being moved into the other ward. It is scarcely necessary to add that both patients were confined to bed, on account of their dysenteric symptoms, and had not been near the cases of cholera admitted earlier in the day. The next cases in succession came from the barracks, Nos. 33, 11, 7, 5, and 12, all separate buildings, more or less distant one from another, and occupied by different companies; and it was not until the 14th, that another attack took place in the hospital, when the patient admitted on the 7th, who had been moved to the large ward on being put on half diet, relapsed and died in a few hours. On the 15th, a soldier of the 95th Regiment, who had been left in the hospital with dysentery when that corps embarked for Hong-Kong, in March, was also attacked in this ward, which was now evacuated for a time. The hospital sergeant, who had suffered severely from epidemic cholera in Ireland, was the next victim to this disease within the hospital, having been taken ill suddenly on the 18th of April. He had been in barracks the evening before, and told his comrades that if attacked he would never recover—a presentiment which was sadly realised the following day. On the 21st two patients on the same side of the west ward, with three beds occupied by men with other diseases in the space between them, were attacked, and both died. On the 1st of May, a patient in another ward was taken ill and died; and on the 5th two others, in separate wards, were attacked, one of whom recovered. From the commencement of the epidemic, the cases of cholera admitted from barracks had been placed in wards by themselves, in so far as was practicable, because the constant moving to and fro of the attendants deprived the other patients of sleep. I shall not attempt to trace the progress of cholera from barrack to barrack, as its sudden changes and doublings almost defy description; but Nos. 1 and 2 barracks, on the sea face, occupied by the artillery and the band of the 37th Regiment, where the space for the inmates was far greater than in any other quarters, furnished only two cases of the epidemic in all, among 100 men; whereas, in the barracks on the banks of the canal, or close to the wet ditch on the land side, the proportion of attacks was 9·43 per cent., without including the cases in the hospital, which stands in a low situation, and the ground underneath it is much intersected by drains. Of three medical officers attached to the hospital, the two junior, whose duties were very laborious, suffered from indisposition, but neither had cholera; and the senior remained healthy throughout, as did two others who were temporarily employed. Of three permanent white orderlies, two of rather irregular habits had nausea and vomiting, but no other symptom of cholera, and both continued to discharge their duties without one day's interruption, notwithstanding their slight indisposition. During the whole period, relays of men from barracks were in constant attendance on their comrades in hospital, and their number must have exceeded 120; but I can only find that one of them died of cholera, and about twenty more were treated for bowel complaints, which were so prevalent at this time, that of 565 men examined as to their state of health, 395 had been affected by them in a greater or lesser degree, and 170 had continued perfectly well. The epidemic did not afflict the women and children to the same extent with the men, for only two in eighty-one of the former, and two in 111 of the latter, had unequivocal symptoms of cholera, though the women were very attentive to their husbands when suffering from the disease, nor was diarrhœa wanting in either class as a predisposing cause. Thirty-six men of the 15th Regiment, from Kandy, where cholera had just ceased in that corps, marched into Colombo on the 21st of April, and proceeded on the 23rd on their route to Galle, and, though no restriction whatever was placed on their intercourse with the men of the 37th Regiment during their stay, yet they neither brought cholera from Kandy to Colombo, nor carried it hence to Galle, though they passed two nights in this garrison during the height of the epidemic. It must be stated, however, that No. 1 barrack, and the adjoining one, where they were quartered, sent only two cases of the disease to hospital, the first on the 7th, the last on the 14th of April, seven days before their arrival. The comparative isolation of the soldier in this colony may make it appear the less remarkable that none of the civil white population, within or without the fort, suffered from cholera, nor did the bishop and three clergymen, who repeatedly visited the worst cases, suffer more than the others who never entered the hospital. The black population was likewise almost perfectly exempt, the only case among them having occurred in a patient who had been long in the hospital of the Ceylon Rifles, on Slave Island, and could not have been near any person affected. Moreover not one of the coolies employed at the 37th hospital in cooking, cleaning the wards, removing nuisances, and in washing soiled bedding and linen, suffered the slightest indisposition. This immunity of the black population from a disease which frequently destroys them in great numbers, in like manner with the exemption of the white civilians above noticed, appears to be a natural consequence of difference of residence and place of employment in a disease of local origin, but would be little short of marvellous in a malady propagated by contagion. The proportion of attacks and deaths among the duty soldiers, who were exposed to the night air on guard, was nearly four times as great as among the recruits and others who did no night duty, though their relative numbers in the regiment were only as five to three; night exposure, therefore, must have had a marked influence in augmenting the frequency of attacks, and few will be of opinion that contagion is more active in the open air and in large unfurnished guardhouses than in comparatively crowded barrack-rooms, the common residence of both classes. Relapses in hospital at intervals of seven or more days, the patients having presented all the symptoms in an aggravated form in both attacks, were so frequent as to affect one-eighth of the cases treated, and caused nearly one-sixth of the total mortality, a first attack appearing to increase the liability to a second, as well as its danger—an occurrence of great rarity in diseases known to be contagious. The rapid course of cholera would likewise be an extraordinary feature in a contagious disease, the average duration of the fatal cases having been less than twenty-four hours; and death may take place in from three to five hours from the first moment of indisposition, such cases presenting, nevertheless, every symptom in its fullest development, being in this respect totally different from smallpox or typhus,

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and only comparable with mephitic poisoning or the most concentrated forms of fever from malaria. Nor does cholera differ less from the diseases named in its rapid erratic progress through a country or community, and in its sudden decline and disappearance. "Ainsi donc, si le choléra est contagieux, il l'est d'une toute autre manière que les maladies pour lesquelles la contagion est généralement admise."—(Andral.) It would be idle to speculate on the influence of heat and cold, moisture and dryness, motion and rest of the atmosphere, in relation to cholera, or on variations in its electric and magnetic states, as the facts are still to be collected which shall prove in how far it is subordinate to such changes. However, let the cause of cholera be what it may, it exerts a marked influence during epidemic periods, either on the health of the population in general, or of particular classes resident in certain localities, and travels where it lists, alike independent of the ordinary routes of commerce and the wayfarings of man. The symptoms of cholera are too well known to require repetition, but the statements frequently made of the invasion of the collapse stage without previous purging are directly contrary to my observation in this disease, and it appears to me that the degree of collapse and danger to life are nearly proportional to the quantity and rapidity of the alvine evacuations. I have indeed seen great temporary prostration in the violent cases of colic which were numerous during the epidemic period; but, unless purging followed, this state never ended in death, and, even if such an event should occur, the characteristic symptoms of cholera would be as much wanting as in sudden death from asphyxia, or any other cause whatever; and I would class all casualties of this description under the head of pernicious fevers, to which alone they bear a striking resemblance. This essential watery diarrhœa may come on slowly, or it need not be of long duration, as the quantity passed at a single evacuation is often enormous, and collapse speedily follows these sudden discharges; but, once that stage is fairly established, the stools generally become scanty and serous, and it is only as the patient rallies a little from the state of prostration that they again tend to increase. In severe and protracted cases these small liquid evacuations gradually assume a reddish tinge from the presence of blood, and they may retain this colour and be mixed with whitish particles for a day or two before any trace of bile or fæces can be detected in them. In a few cases vomiting was not an early or troublesome symptom, while in many others it persisted for days after the purging had almost ceased. With the exception of a single fatal case, cramps in the extremities, particularly in the legs and feet, were present at an earlier or later period of the collapse stage. The urinary secretion was suppressed, or very greatly diminished, in every case of cholera, and when it returned the aid of the catheter was frequently required in consequence of the agglutination of the opposite sides of the urethra by a viscid mucus. The sudden emaciation and sharpening of the features; the sunken eyes; the coldness and lividity of the surface; the harsh weak voice; the filiform feeble pulse; the restlessness, with vertigo and faintness in the erect posture, in addition to the foregoing symptoms, are sufficiently characteristic of cholera in all severe cases: but shrivelling of the skin on the fingers, so generally present in this disease, I have also seen in remittent fever, under the somewhat similar conditions of sweating and diarrhœa. Delirium is very rare, unless in protracted cases; but vision and hearing often become dull, though the patient may continue sensible of painful impressions on the surface to a late period of existence. Consecutive fever and cerebral congestion were less frequent and dangerous here than in Europe. Six bodies were examined after death, namely, three after acute attacks, and three after an illness of two or three days' duration. In two of the former the whole intestine had a reddish colour from extreme capilliform injection, and the peritoneal surfaces had a plastic adhesive feel as if coated with thick mucilage. In one of these cases the upper portion of the small intestine contained transparent gelatinous masses resembling coagulable lymph, as seen on serous surfaces; in the other there was only a little greyish mucus. In the third case the intestines were pale, and contained a large quantity of a grey turbid fluid mixed with white particles. In all three there was great general softening of the villous coat; the separate glands were much enlarged, and the intestine contained no bile, though the gall-bladder was full. In the three protracted cases many of the glands of Peyer were thickened and unusually vascular, and a few presented small circular points of superficial ulceration, with well-defined reddish margins; the enlargement of the separate glands was also very remarkable, and the villous coat was extremely soft; but these subjects were passing into a state of decomposition—a change which was scarcely perceptible in the other series. In all the cases the muscular substance of the heart was pale, soft, and easily broken down under pressure; the blood was dark-coloured, and presented little trace of fibrinous coagulum, especially in the acute cases. But it is needless to extend these details, as no description of morbid appearances can be considered of the smallest value now-a-days without the aid of the microscope in the hands of a practised observer and skilful pathologist.

The symptoms of cholera in this epidemic seemed to prove that the essential character of the disease consists in the discharge of the serum of the blood (or liquor sanguinis?) from the bowels; but whether this sudden transudation depends on changes in the blood itself, or in the mucous membrane, or on a rapid development of cells on the internal surface of the intestine, I cannot pretend to determine, though the separation of the epithelial covering of the villous coat seems to favour one or other of the latter suppositions. The diminished proportion of serum to coagulum in the blood of cholera patients, which has been stated by Andral to be one-half less than in healthy blood, is also corroborative of this view of its nature; and the occurrence of serous stools without a trace of fæces in acute cases proves that these must have been washed out of the intestines by the previous diarrhœa—an inference which is farther confirmed by the absence in such cases of feculent matter in the bowels after death.

This opinion, that the collapse stage of cholera is an effect of the loss sustained by the circulating fluid in consequence of the discharges from the bowels, has long been maintained, and suggested to me, during the epidemic of 1834, at Gibraltar, the idea of employing decoctions of the strong vegetable astringents in large quantities by way of injection to check the diarrhœa. The trials I then made encouraged me to pursue the same plan at Colombo in 1847, and further experience has only tended to convince me of its utility. It must be clearly understood, however, that this remedy is mainly applicable while the purging continues: for when collapse has set in, and the evacuations are scanty, or altogether suspended, it may prevent their return, but cannot restore to the blood that fluid portion which has been lost; and the injection of tepid water or saline solutions into the veins with this view has never, within my own knowledge, had more than temporary success. The decoction of oak-bark was the astringent used in 1834; but in Ceylon it was necessary to substitute a decoction of catechu, made with an ounce a half or two ounces of the extract to a quart of water, which was thrown up in quantities varying from two to five or six quarts at a time; this decoction, however, causes more uneasiness to the patient, and can seldom be retained so well as the former. The action on the economy of many powerful vegetable astringents used in this manner appears to be perfectly innocuous, and their efficacy in arresting serous purging, whether in the earlier stage of cholera or profuse diarrhœa, is far greater than when taken into the stomach. Alum is the only mineral astringent I have hitherto used in sufficient quantity to have any decided effect, but it was generally as an addition to the decoction, and not of much value as such. These large astringent injections need in no way interfere with the other ordinary remedies, and they may be repeated to the third or fourth time without the slightest inconvenience, provided no undue force be employed; and the ileo-cæcal valve will present no obstacle whatever to their upward progress once the cæcum is distended, as may be proved on the subject. Of the numerous medicines tried in cholera, opium and its preparations are among the most useful; but they must be given with caution when the irritability of the stomach is trifling or has almost ceased, because narcotism is easily induced by them under these circumstances, though I have never known it to occur after enemas containing opium in quantities which might appear to be unusually large. In the collapse stage, the frequent and moderate use of stimulants internally, with enemas containing ether, turpentine, ammonia, &c., may be tried; and externally, sinapisms, turpentine, and frictions with stimulating liniments, together with the application of warmth to the trunk and extremities, may be beneficial. The inhalation of the vapour of ether was employed, probably for the first time in cholera, to relieve pains in the bowels, cramps in the limbs, and the troublesome singultus which frequently occurs in protracted cases, and often with considerable temporary relief; but it has no influence on the progress of the disease, excepting in the rare cases where it produces a species of intoxication, and in these, particularly if used early, it raised the pulse, diffused a degree of warmth over the body, and appeared to be decidedly beneficial. The apparatus, however, was so imperfect that the quantity could not be properly regulated, and consequently, in some patients it excited cough, followed by vomiting, and they could not be induced afterwards to continue the inhalation. In mentioning the trisnitrate of bismuth, with belladonna, strychnine, oxgall, alkaline sulphurets, and cold to the abdomen, among the remedies resorted to, for special purposes, it is rather to show the inefficacy of other means, than to recommend them to particular notice. In the collapse stage, the patient should be allowed to drink freely of cold water, whey, beef-tea, or any diluent he may prefer; and restriction as to quantity at this period, through fear of exciting vomiting, appears like withholding a means pointed out by nature as essential to recovery, under the apprehension of exhaustion from efforts which rather tend to give a certain impulse to the capillary circulation than to destroy life; and it is only after the circulation and warmth are in some degree restored that any restraint of this kind should be imposed. The moment epidemic cholera appears in any locality, the use of purgatives of every kind should be entirely abandoned, as the mildest remedies of this class will produce unwonted effects, and may convert slight relaxation of the bowels, so prevalent at such times, into an alarming diarrhœa, if they should not induce actual cholera.

If it were possible to evacuate a garrison or town so soon as epidemic cholera declares itself, no other preventive measure would be necessary; but, as that is clearly impracticable, I would recommend all who must remain, whether suffering from relaxation of the bowels or not, to use a strong astringent vegetable decoction, such as that of catechu, as the best prophylactic within their reach. This measure was actually adopted in the 37th Regiment during the epidemic, and the suggestion now made is on the result of that limited experience.

From the 18th of March to the 5th of July, 316 cases of bowel complaint, exclusive of cholera, were treated in the 37th hospital, and of this number one case of acute dysentery proved fatal. Of seventy-six cases of cholera, admitted within the same period, twenty-six died; but in ten of that number the disease did not seriously endanger life; and, making this deduction, the deaths will remain twenty-

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six in sixty-six cases of the aggravated form of this disease, or 39·7 per cent. It is well known that the mortality from cholera varies greatly in different epidemics, as also at particular stages of their prevalence, and these differences have been probably much enhanced by the classification of the cases; but in estimating the proportion in that under consideration, some allowance should be made for the disadvantage of having eight of the cases already patients in hospital with severe diseases, when attacked by cholera, viz.: two with pneumonia, one with bronchitis, four with dysentery, and one with anasarca, of whom the last alone recovered at the same time from cholera and dropsy. The admissions from barracks, taken separately, give nineteen deaths in fifty-eight cases of the severe form of cholera, and even among these nineteen fatal cases, four died of relapses in hospital, between the seventh and tenth days of convalescence, from a previous attack; the ratio, therefore, appears sufficiently favourable to warrant others in making trial of an additional remedy, which in my experience has proved itself efficacious in arresting diarrhœa, under unpromising circumstances, and at the same time perfectly harmless. However, let the treatment pursued in cholera be what it may—let the care of the medical attendants be everything that could be desired, and even let patients recover from states apparently hopeless, some of them retaining a bluish tint of features for months afterwards—still the mortality, in the severe form of this disease, will be sufficiently great to prevent any person of moderate experience from boasting of the success of remedies.

P.S.—The word contagion has been used to signify the communication of a disease from one person to another, whether by contact with the body, secretions, excretions, or effluvia resulting from the morbid processes going on in the sufferer—material contact, in some shape, being necessary for its production.

I have seen epidemic cholera in Ireland, Gibraltar, and Ceylon.—A. B.

Colombo, July 15.

FOREIGN BODY IN THE THROAT—CESSATION OF RESPIRATION AND THE CIRCULATION—REMOVAL OF THE FOREIGN SUBSTANCE—ARTIFICIAL INFLATION—RECOVERY.

Communicated by EVAN THOMAS, Esq., House-Surgeon to the Cumberland Infirmary, Carlisle.

Last week a robust, healthy-looking little girl, aged four years and a half, was brought into the infirmary in a dying state; her mother said the child was well until it took its dinner, consisting of potatoes, and, whilst eating it, a piece of potato had stuck in the throat, as she supposed.

I saw the child about a quarter of an hour afterwards in the following condition: making the greatest efforts to breathe; face pale; lips livid; eyes motionless, lids half closed, conjunctiva highly injected; foaming at the mouth, which was spasmodically closed, and remained so, notwithstanding the most vigorous attempts to open it, until the child apparently died.

I instantly proposed, and strongly urged, the mother (an Irish woman) to let me open the trachea. As a matter of course, she obstinately refused, and alarmed, as I imagine, at such a proposition, began to wend her way homewards. Finding it useless to argue with her as to the propriety of such a procedure, and, after promising that I would not cut the child, she allowed me to open its mouth; this was performed without difficulty—pressed with my left fore finger upon the back of the tongue, and passed my right forefinger into the pharynx, dislodged the piece of potato, and removed it.

I closed the nostrils with my left fore-finger and thumb (the child being still in its mother's lap), took a deep inspiration, applied my mouth directly to the child's, previously wiped, and gradually distended the lungs, then grasping the chest with my right hand; but, finding that I could not accomplish both effectually, Mr. Wheatley, the house pupil, supplied the lungs with air, at the same time closing the nostrils, whilst I imitated the actions of the respiratory muscles by alternately squeezing and relaxing the parietes of the chest; this was repeated seven or eight times, when, to the surprise of all present, the child was observed to take a share in the process. The supply of air was now stopped, but I continued until respiration was fairly established. The child left the infirmary in an hour and a half perfectly well, and has appeared since in the same condition.

Remarks.—As far as I am able to tax my memory, I do not remember ever having read an account of an instance altogether like the preceding. The child, as I said before, was dead within a few moments, so far as the cessation of the pulse and the breathing may be considered as evidence. As may be supposed, also, some time must have elapsed in proposing and urging the apparent call for immediate operative interference as the only alternative. It struck me at the time that, if the obstacle to the passage of air into the lungs could be removed, although life was apparently extinct, yet artificial inflation might at least be tried, with as good chance of success as in recent cases of submersion or asphyxia of stillborn infants.

From the brief detail of the general symptoms, their order and character, there could be no doubt about the existence of a foreign substance in the throat or trachea, but its exact situation was a matter of conjecture, as may be seen from the history; there was no time for a careful physical examination of either, however desirable.

The half-boiled piece of potato was, in shape, somewhat analogous to a garden bean; three-quarters of an inch long, a little better than half an inch wide, and somewhat less than half an inch thick; slightly wedged-shape at one end, where, I imagine, it partly fitted the rima glottidis, and there stuck; the greater portion of it, however, I felt plainly behind the epiglottis.

CONTRIBUTIONS TO THE MEDICAL TOPOGRAPHY OF THE MEDITERRANEAN.

By WILLIAM THOMPSON KAY, Esq., Assistant-Surgeon of the Plymouth Division of Royal Marines.

"THE GRAND OBJECT OF ALL TRAVELLING IS TO SEE THE SHORES OF THE MEDITERRANEAN: ON THESE SHORES WERE THE FOUR GREAT EMPIRES OF THE WORLD—THE ASSYRIAN, THE PERSIAN, THE GRECIAN, AND THE ROMAN. ALL OUR RELIGION, ALMOST ALL OUR LAWS, ALMOST ALL THAT SETS US ABOVE SAVAGES, HAS COME TO US FROM THE SHORES OF THE MEDITERRANEAN."—*Samuel Johnson.*

Syria.—*Its Situation, Name, Extent; Divisions, Ancient and Modern; Physical Characters; Productive Industry; Manufactures; Civil and Social State; Climate; Diseases; State of Medicine and Surgery; Works on the Topography, Natural History, &c., of Syria.*

(Continued from p. 471, vol. xvi.)

Manufactures, Trades, &c.—"The Syrians are not wanting in dexterity, or experience in the finishing of most articles; they have a pretty accurate sense of the beauty and arrangement of form and colours; the patterns they work, though not very varied, are generally graceful; their dyeing is excellent; their artisans are dexterous and intelligent. They use, for the most part, a rude machinery, but, were some of the modern improvements introduced, such as the Jacquard loom, there would be a revival of manufacturing prosperity."(a)

The various trades, &c., are deserving of attention, and possess considerable interest from the fact that they have continued unchanged, with but few exceptions, for many hundred years. They are given below in as concise a manner as possible, and for the sake of convenience are arranged alphabetically.

Agriculturists.—The *plough* consists simply of a beam rising from the share, at one extremity of which is an upright rail, where the husbandman guides it; to the forepart a couple of oxen are yoked. The raised portion of the beam prevents the share from penetrating deeply, and it is thus well suited to the soil, which requires very little preparation for the grain. The driver carries an iron shod staff to goad the oxen (a), and clean the share.

The Syrians employ several contrivances to irrigate the land. The common method is the *shadoof*, which consists of a bucket attached to a long pole, supported by a cross stick resting on a forked upright, and balanced by a heavy weight, a stone, at the other end. The bucket is pulled down into the water by the labourer, and raised by the greater weight of the balance.(b) Another contrivance is a wooden wheel, fixed in an artificial chasm, and supplied with earthen vessels attached to cords which work upon it. This wheel is perpendicular, and is connected with a large horizontal one, worked by a donkey or an ox blindfolded. The water is brought up in the earthen vessels, and poured out as the wheel revolves into a cistern which is connected with intersecting gutters in the soil.

Baking.—The oven is usually built of clay, and generally of a conical shape, being about three feet high, with an opening at the top of more than a foot in diameter, and near the bottom there is another hole for the introduction of fuel and withdrawal of ashes. The oven is heated with wood, allowed to burn down to clear embers, which fix on the bottom, and long continue to afford much heat. The dough is prepared in a large wooden bowl, and portions are successively moulded into the form of thick round cakes on a board or stone near the oven; this, when flattened out to about the size of a breakfast saucer, is tossed about quickly with a rotatory motion, till it becomes no thicker than a pancake, and forms a circle of a foot in diameter; when it is brought to the requisite thinness one side is wetted with water, as well as the hand and arm by which it is introduced into the oven. The wet side, by an operation which requires much tact, is struck against the side of the oven, where it remains about five minutes.(c). The bread thus made is flexible and moist, resembling stale pancakes. Occasionally, in those towns where Europeans have resided for some years, this pancake-bread is superseded by loaves, weighing about one pound six ounces (the cost of which is 2½d.), which are baked in ovens resembling our own.

Bankers.—The common currency of this country is of three kinds—1. Turkish treasury bonds (sehhim), of 25, 50, and 100 piastres value, bearing 12½ per cent. interest. 2. Turkish coin of copper, plated silver, and gold, which will be described in their proper place. 3. Bills of exchange on Europe. The bankers, by leaguing themselves with the Government, run up the European changes as high as possible, and consequently reap large profits.

Barbers.—The barbers of Syria luxuriate in Mambrino basins for lather; leathern razor-strops of supple kind, and black withal from constant use; tweezers of cruel shape for the extraction of superfluous hair from the cheeks; and a gaudy-coloured razor-cloth. If he delight in following his trade to the utmost limit, his walls display curious dentine trophies—lancets, box-wood sticks for circumcision, and tooth-instruments of the rudest description mingled with lumps of raw silk for raising a lather, almond-soap, and inlaid looking-glasses, whilst a dirty-looking tub, covered by a damp cloth, may be seen in the corner of the room containing the Anatolian leeches, so highly prized by the master of the house. In a future paper I shall enter particularly into the various duties performed by

(a) Dr. Bowring's "Report on the Commercial Statistics of Syria."—London, 1840.

(a) Acts ix. 5.

(b) Deuteronomy xi. 10.

(c) "And Abraham hastened into the tent unto Sarah, and said, Make ready quickly three measures of fine meal, knead it, and make cakes *upon the hearth*."—Genesis xviii. 6.

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the *barber-surgeon*, and the means, &c., employed.

Basket-makers, &c.—The materials employed are chiefly split palm-leaves, cocoa-nut fibre, rushes, and Egyptian flag, and consist principally of

Chair-brushes, made from the cocoa-nut fibre, pegged tightly into holes perforated in a piece of beech. They are used chiefly by the British seamen to scrub their hammocks, and by the Syrians for their canvas.

Mat-brushes of a fan-shape, made from the split palm-leaves, and united to a handle. Used for sweeping the rooms, &c. Occasionally they are ornamented with glass, mother-of-pearl, tortoise-shell, tin-foil, &c., neatly painted and highly varnished.

Clothes-brushes of a round form, made by binding together the palm fibre, or Adrianople reed, dipping the extremity in resin, and covering it with a strip of spangled cloth.

Rush-baskets manufactured from the Egyptian flag, rushes, or split palm, are used by merchants to pack their merchandise, as coffee, dates, figs, &c.; or labourers, for transporting earth, grain, fruit, &c., or for carrying tools and produce of factories.

In addition to these we have panniers for the heavier merchandise, chicken-coops, bird-cages, and fences of wicker-work, similar to those used in England.

Buhl work is a species of marquetry, which consists in inlaying small ornamental pieces of brass in polished wood-furniture; and there is another species of inlaying that may be appropriately classed with buhl-work, which consists in filling up the devices, previously carved or burnt, with an amalgam of mercury and tin in the crystallised state; similar to that employed in the "silvering" of looking-glasses. The latter plan is used principally for trinkets. Mother-of-pearl is also employed in this art.

Candle Makers and Chandlers.—The former manufacture, and the latter sell, candles and tapers of all sizes and colours, from those tapers used at festivals to the enormous candles for high mass, or the tombs of emirs and high personages. They are made from the common beeswax, which is melted in a copper caldron, and the cotton wicks ranged on a stick dipped in until the required thickness is attained. If any particular colour is desired, the pigment is incorporated with a due proportion of wax, and the candle dipped for the last time in the mixture, and set aside to cool. Light blue, green, and pink are preferred.

Carpenters, Carvers, Turners, &c.—The art of carpentry is very limited in Syria, being confined chiefly to the construction of flat roofs, house-fittings of the rudest description, boxes for clothes, &c. For the roofs they employ fir, but for other purposes oak, plane, chestnut, mulberry, and even walnut. The wood is obtained from the bazaars, being transported thither from the forests on the backs of mules or camels. The carpenter follows the Eastern custom of sitting on the ground whilst at work, and, instead of a bench, a strong stake is driven down before him, leaving about six inches above the surface; upon this he rests his work, which he steadies with his feet. Few tools are required: viz., chisels, gimblets of a ruder description than those used in England, planes which differ somewhat from ours in shape, and saws possessing a like peculiarity, the latter resembling our stonemason's saws.

Carvers.—The art of carving is little practised, except among the monks, who confine their exercise of it chiefly to rude figures of our Saviour and the Virgin.

(To be continued.)

NAVAL PROMOTIONS AND APPOINTMENTS.—Assistant-Surgeon: G. King, to the rank of Surgeon.—Surgeon: Augustus Slight, to the Fly.—Assistant-Surgeons: Thomas Bell, to the Persens; W. J. Hamilton, James A. Agerest, and William Evans, to the Hibernia; William Bainbridge, to the Tartarus.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meeting of Oct. 11; M. BRONGNIART in the Chair.

CHRONIC FARCY.

A case of this malady was forwarded to the academy by Dr. Sédillot; the following is an abstract:—

A man, aged twenty-six, of good health and strong constitution, was, during the spring of the year 1845, in the habit of riding a horse affected with glanders, and was afterwards obliged to groom several horses similarly diseased. For the first time he then suffered in his health, and was confined for a fortnight by lassitude, uneasiness, and fever. Seven months later, having been absent on leave, he was seized with a severe attack of ague. On his return to his regiment in April, 1846, an abscess was discovered in the right thigh, containing a watery pus tinged with blood; both legs, the right arm, and the head, became successively the seat of fluctuating tumours, from which escaped, after incision, dark blood and a viscid ropy serum; the constitution was gradually sinking under the progress of the disorder, but still the appetite was preserved, digestion was unimpaired, and respiration did not seem to be in the least degree embarrassed. The nerves were not the seat of any irritation, the pulse was small and quick, the skin cool, sleep tranquil, and intellect clear.

On Jan. 30, 1847, the patient was placed in the wards of Dr. Sédillot, at the military hospital of Strasburg, and underwent a course of treatment which seemed at first to arrest the course of the malady; but, towards the end of April, cough and diarrhœa made their appearance, the bones of the head became carious, gangrenous erysipelas broke out on the 22nd of July, and on the 26th the patient expired. On dissection, lobular abscesses were noticed in the lungs, spleen, and liver; the throat was ulcerated, also the epiglottis, larynx, and trachea. Two perforations existed through the bones of the cranium, the ulcerations of the limbs had acquired considerable size, and the saphena was partly destroyed, and was filled with pus where it was not obliterated.

In order to demonstrate the nature of the disease, the pus from the sores was inoculated to three horses, who became all three glandered in a short time. M. Sédillot added, that in several instances wounds washed with the sponges employed by the patient whose history we have related acquired an unhealthy aspect, which cleared all doubt in his (M. Sédillot's) mind as to the nature and contagious character of the disorder.

ACADEMY OF MEDICINE.

Meeting of Oct. 12; M. BEGIN in the Chair.

LITHOTRITY AND CYSTOTOMY.

(*Adjourned Debate.*)

M. Velpeau remarked that the present debate, although unproductive of any new solution of the questions before the academy, still would not be unprofitable, in so much that it would serve to render more popular ideas which had hitherto been concentrated amongst a small number of persons. M. Velpeau did not doubt the good faith of M. Civiale, but he believed that gentleman to be in error on many points; the facts which he laid before the public should be interpreted in a very different manner from that in which they were accounted for by M. Civiale; that gentleman had reproached M. Velpeau with not bringing forward the results of his own practice in the first place. M. Velpeau had examined M. Civiale's cases only, because that gentleman having asserted in the political papers that he cured ninety-eight cases out of a hundred, it was fair to investigate the truth of the assertion. With regard to his own practice, M. Velpeau might flatter himself that he would be able to show M. Civiale as happy results as his own. M. Velpeau had now operated by crushing twenty-four times; no patient had died from the operation—at least, if he was permitted to employ M. Civiale's mode of statistical computation. One patient died from cystitis, after exploration of the bladder: the calculus had not been crushed, therefore the case was not one of death from lithotrity. In a second case, death occurred after three operations for crushing. A third patient had in his bladder a perfect quarry—over a hundred concretions: after a few attempts at lithotrity, death took place. In a fourth case a large calculus existed, and M. Velpeau recognised its presence; he was about to proceed to the operation, when the concretion suddenly baffled investigation. Inflammation of the bladder followed these repeated explorations, and the patient died; on dissection, two bladders were found communicating with each other, and in one of these the concretion was lodged out of reach of the instruments. Thus, were he to use M. Civiale's method in the appreciation of his cases, he might say that he lost not a single patient from lithotrity. But, counting these deaths, he found the mortality in his practice to have been one in six—a result more favourable than that of one in five, shown by M. Malgaigne to be that of M. Civiale's operations. In conclusion, he would say that M. Civiale was wrong in considering him as an adversary of lithotrity; he was only hostile to exaggerations. Lithotrity was a valuable invention, which reflected sufficient credit upon M. Civiale to free him from any necessity for exaggerating its results.

M. Roux regretted that several important points had been overlooked in the debate; for instance, lithotrity in children. In infancy M. Roux believed that cutting would always be preferred. This opinion he founded upon the simplicity of calculous disease at an early age—upon the absence of apprehension in the patient, and upon the necessity of several operations for the removal of a concretion by lithotrity. In the appreciation of the two methods, one important circumstance had been barely mentioned; it was the possibility of performing cystotomy without pain, thanks to the ethereal inhalation. This innovation would, in many instances, induce surgeons to employ cutting instead of lithotrity.

Meeting adjourned at five o'clock.

TREATMENT OF URINARY FISTULA.

Some years since the treatment of this disease consisted in the introduction of catheters, which were left permanently in the bladder for the purpose of preventing the contact of the urine with the fistulous passages—a circumstance by which their cicatrization was much delayed, if not altogether prevented. It was soon discovered that the permanent sojourn of a foreign body in the urinary duct was in itself a cause of irritation which interfered materially with the cure. The practice in this respect has undergone in France a complete change: the catheter is introduced several times a day, and removed immediately after evacuation of the contents of the bladder. A case of most successful treatment by this method is related in the "Bulletin de Thérapeutique." The patient, aged twenty, was admitted into the wards of M. Vidal de Cassis, and presented no less than thirteen fistulæ consequent upon gonorrhœa and peri-urethral abscess. After seven months' residence in the hospital the patient was completely cured. When a stricture complicates the disease, as it is most frequently the case, it is often extremely difficult to pass the catheter into the bladder; and in such instances we imagine that few practitioners would be tempted to withdraw immediately the instrument after removing the urine, thus incurring the risk of not being successful in a second attempt at catheterism. During the first days of the treatment of a case of this description, we believe that M. Vidal himself would leave a bougie permanently in the duct until such time as a free passage should have been formed by dilatation, for the more easy introduction of instruments.

For the cure of ancient fistulous passages of the urethra, another and most ingenious method has been of late years proposed by M. Ricord and M. Ségalas, improved upon by M. Jobert:

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it is founded upon the readiness with which recent wounds of the perineum and urethra are healed—a fact abundantly proved by the statistics of lithotomy. A grooved staff being, therefore, introduced into the bladder, an incision is made into the urethra, nearer to the bladder than the fistulous orifice; and through this wound a catheter is introduced and fixed in such a manner as absolutely to prevent the urine from escaping through the abnormal orifice, which is closed by an anaplastic operation. When the cicatrization of the engrafted skin is complete—a result generally obtained in a very few days—the catheter is withdrawn from the newly-opened wound, and, a long bougie having been placed in the urethra and bladder, the parts are allowed to heal. By this operation we have witnessed the cure of three cases in which the fistula had existed for many years.

Introduction of Foreign Bodies into the Bladder.—Case.—A man, aged thirty-two, was admitted into the Hôpital Beaujon on the 21st of August last. On the 16th of the same month he had introduced into the bladder an ivory toothpick, the presence of which was immediately ascertained with a metallic catheter. An unsuccessful attempt was made to remove it with a three-pronged forceps. During the following days, the instrument invented by M. Cornay for the removal by aspiration of small calculi, or of foreign bodies of small dimensions, was resorted to on three occasions, but without advantage. (For a description of this instrument, see *Medical Times*, vol. xiii., p. 189.) M. Robert, in whose wards the case had been placed, was desirous of performing cystotomy, but allowed himself to be prevailed upon by the patient's request that lithotriptic measures should be employed. Accordingly, M. Heurteloup endeavoured to break the earpick with a lithoclast, and divided it into three fragments, one of which was expelled spontaneously with the urine. But inflammation of the bladder, together with peritonitis and intermittent febrile symptoms, set in, and, in spite of the antiphlogistic treatment adopted, the patient died on the 12th of September. On dissection the peritoneum was found in a violent state of inflammation, and the bladder perforated close to the orifice of the urethra by the sharp extremity of one of the fragments produced by the lithoclast. The fragment protruded two inches into the bladder, in the cavity of which it stood upright, and four lines of the earpick projected into the peritoneum. The internal surface of the vesica was inflamed and covered with false membranes.

Treatment of Neuralgia by Superficial Cauterization.—The treatment of neuralgia and of its painful symptoms has, as well that of many other diseases, derived some benefit from ethereal inhalations. It is not only to the temporary arrest of pain during insensibility that we refer, but to the method recommended by M. Valleix, and which has already in several instances been productive of the most advantageous results. Thirteen cases of neuralgia, occupying various seats, are recorded in the *Union Médicale*, by M. A. Notta; ten were speedily cured, two were relieved only partially, and in one no benefit was derived from the treatment, which consisted of very superficial cauterization with the actual cautery during ethereal insensibility. In several instances one application was sufficient; in others it had to be repeated a second time.

D. M'Carthy, D.M.P.

Normal Anatomical Appearances of the Intestinal Mucous Membrane in the Infant at the Breast.—Friedleben and Flesch, of Frankfort, give the following:—The colour of the mucous layer, as well as of the subjacent mucous membrane itself, is either greyish, white, or yellow, from the colouring principle of the bile, or more or less of a darkish livid colour, from exhibition of blood. It is to be remarked, however, that in this last case the mucous membrane is free from any arborization or punctuation. The mucous membrane adheres very closely to the subjacent tissue, so that, after being cut through, it can be detached only to a small extent. The mucous membrane of the colon, however, is less firmly adherent, owing probably to the greater amount of subjacent cellular tissue; its consistence is always great enough to prevent it being rubbed off by the finger or with the back of a knife; where the adhesion appears lessened without simultaneous diminution of its consistance, large pieces of the mucous membrane may be separated from the subjacent cellular tissue. The solitary glands, neither of the small intestine nor of the colon, are visible to the naked eye. As to those of the colon, however, we discover occasionally delicate roundish spots, presenting a contrast to the rest of the membrane by their opaque colour, but without any elevation. The villous layer, and the glands of Lieberkuhn, are also visible. The Peyerian patches, on the contrary, may be discovered at the earliest period of life, when the intestine is held up to the light, owing to their greater opacity as compared with the rest of the membrane. Whenever these patches are recognised at first sight, a pathological state may be suspected. The largest of the patches are situated near the ilio-colic valve, where they may be discovered with a slight examination; the smallest are in the jejunum; those of the ileum are always distinguished by their marked limits. The number of the patches varies as much as from sixteen to thirty-six. The cases in which they are found to be only from four to six, are regarded as referable to atrophy of the mucous membrane.

Bromide and Iodide of Potassium in the Secondary and Tertiary Forms of Syphilis.—Dr. John Egan has experimented largely, at the Westmoreland Lock Hospital, on the comparative efficacy of these two substances, and has arrived at the following conclusions:—First, the iodide exerts, in the majority of instances, an instantaneous, decided, and always a beneficial action, contrasted with the bromide, whose effects are slow, unsatisfactory, and frequently unsuccessful. Secondly, the iodide seems to act favourably, not only upon the disease for which it is prescribed, but also upon the constitution in general, by increasing the appetite, improving the powers of digestion, thereby enabling the patient to gain flesh while under its influence; whilst the bromide not unfrequently produces nausea, impairs the appetite, and deranges the digestive organs. And lastly, every form of secondary and tertiary syphilis (with the exception of iritis) is amenable to the action of the iodide, whilst that of the bromide is extremely circumscribed. A very general impression prevails, that, in order to obtain favourable results from the exhibition of the iodide, it is requisite to administer it in large doses; but far more desirable consequences are likely to ensue from moderate than excessive doses: it has seldom occurred that every wished-for indication was not fulfilled by five-grain doses, and in no instance did it appear necessary to increase it further than ten grains three times a day. The vehicle most commonly selected for its exhibition is usually the compound decoction of sarsaparilla; but the beneficial effects of the iodide are no way assisted by this vehicle. The bromide, however, has been found decidedly advantageous in some rapid affections, and in venereal rheumatism.

Cod-liver Oil and Phthisis.—Dr. Madden says that his experience of this medicine is extremely favourable, and that the most marked improvement has followed upon its steady employment. The cough becomes less troublesome, and the expectoration less copious; the appetite better, and the emaciation arrested; and even a decided and manifest increase of flesh takes place in many cases. That, while it will not cure consumption, it is most efficacious in bringing about a more healthy general condition of body, in which nutrition is carried on more satisfactorily, and the morbid disposition is, for the time at least, greatly checked.

Vaccination and Smallpox.—M. Von Burchem has come to the conclusion that, among the vaccinated, the older the individual, the greater the liability to an attack of smallpox. Among the unvaccinated it is the reverse: for the younger the person, the more he is liable to an attack of smallpox.

Analysis of the Lymph of a Horse.—Dr. Day observes that Geiger has recently analyzed lymph taken from the fetlock of the hind foot of a horse, which was emitted in large quantities and in apparently a normal condition. It was of a pale yellow colour, of a sickly odour, slightly saline taste, neutral, and had a specific gravity of 1·017. After standing for some time, a gelatinous trembling coagulum was produced; the serum beneath it being perfectly clear, of a faint yellow colour, and, when examined under the microscope, containing only a very few corpuscles. Analysis gives the following results:—

Water	983·7
Solid constituents..	16·3
Fibrin	0·4
Albumen	6·2
Extractive matter..	2·7
Fixed salts	7·0
Fat and ammonia salts	tracce

The corpuscles contained in the fluid were none of them so large as blood-corpuscles; they had a granular appearance, a well-defined outline, and many exhibited a decided nucleus. Some were perfectly round, and others elliptical. There were no traces of fat or red blood-corpuscles.

Nasal Calculus.—Dr. Cooke, of Long Island, attended a lady, twenty-five years of age, who had suffered for eighteen months from severe headache; the pain was most intense over the frontal sinuses, accompanied by an offensive discharge of a muco-purulent character from the left nostril and throat. The pain in the head increased so much as to impair her memory, her sight, and digestive functions. On examination, the nasal passage, on the left side, appeared to be completely blocked up. The obstruction was supposed at first to be a polypus, but on passing a probe the substance was found to be hard like a portion of secreted bone, about two inches from the orifice. The septum was forced over to the opposite side, causing the right nasal passage to be somewhat contracted. The left lachrymal duct was obstructed, and pressure made at the inner canthus was followed by a discharge of purulent matter from the puncta. Stillicidium lachrymarum existed, and the conjunctiva injected. The probe being withdrawn, a pair of polypus forceps was then introduced, and with some difficulty the hard substance was grasped and extracted through the nostrils. Considerable hemorrhage followed, but it was soon checked by the application of cold. The foreign body was of irregular form, rough, about an inch long by half an inch in diameter, hard, brittle, and evidently of a calcareous nature. The patient was not aware of ever having introduced anything into the nose. Inflammation of the mucous membrane of the nose and throat followed the operation, but was soon subdued by antiphlogistic treatment.

Parotid Gland.—Dr. Shipman, professor of surgery in Indiana Medical College, attended a woman, seventy years of age, with a tumour at the angle of the jaw, of four years' standing. It was about the size of an orange, very hard, with lancinating pains through it. This was pronounced to be scirrhus of the parotid gland, and an operation resolved on for its removal. Previously to this the carotid was tied. At the commencement of the operation there was considerable hemorrhage, which soon ceased. The wound afterwards healed kindly, and the ligature came away twenty-eight days after the operation. The patient continued well for a year, when she began to decline; at the end of two years the tumour returned, and she finally sunk under it. She, however, recovered perfectly from the operation of tying the vessel.

Guy's Hospital.—Mr. Callaway has resigned the office of Senior Assistant-Surgeon to Guy's Hospital, and has declined offering himself as a candidate for the office of Surgeon to the institution, vacant by the death of Mr. Morgan.

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TO CORRESPONDENTS.

THE MEDICAL TIMES may be procured by an order on any Newsman or Bookseller, or it will be sent direct by post from the Office of the Medical Times *to Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d.*

A HANDSOME PORTFOLIO *for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.*

COVERS FOR BINDING *the Numbers of the "MEDICAL TIMES" are now ready, and may be had, by order of any Bookseller, or at the Office, price 1s. 6d.*

The communication from the Board of Guardians of the Prescot Union will be inserted next week.

Kâf.—*We shall be happy to comply with our correspondent's wishes.*

A Subscriber, Liverpool.—*We will look into the matter referred to, and shall certainly use our best efforts to see justice done to the students.*

Mr. Geo. Gibson, Ulverstone.—*The communication has been received.*

Mr. Hugh Hastings, Stokenchurch.—*The paper on Lumbricus Teres has come to hand.*

B. A. *has certainly not observed that we had an article on the subject last week. We shall be glad to hear from him again.*

Delta.—*The information proffered will be thankfully received. It will be necessary, however, in order to publication, that it be authenticated. We are oftentimes compelled, from the inattention of correspondents to this latter circumstance, to consign their writings to oblivion.*

A Young Surgeon.—*We know of no other work that the author referred to has published. It has passed through two editions, and is considered by the profession as a talented production. We are unable to answer the second question, and it has certainly nothing to do with "medicine or its collateral sciences."*

Ignoramus.—*The symptoms, though obscure, denote rather intestinal irritation, than primary mischief in the brain.*

Chemicus.—*The first question ought more properly to have been addressed to the Editor of the* Pharmaceutical Times. *To the second we answer, that hippuric acid is sometimes found in healthy human urine, and in some cases of disease a large amount is secreted.*

Mr. Slocombe's *request cannot be complied with, from the numerous claims on our space.*

A Student.—*A bookseller's catalogue had better be consulted, and our correspondent will then be better able to judge for himself. A preference in the case he names would be invidious.*

A Sufferer.—*We never act as inquisitors on any gentleman's private practice. When a thing becomes public we do not then hesitate to give our opinion.*

Dr. Penton.—*The work is published by Mr. Renshaw, Strand.*

An Old Subscriber.—*The letter had better be sent to the War-office, where, we have no doubt, it will receive all the attention it merits.*

A Liverpool Surgeon.—*The case of delirium tremens, sent for "early insertion," does not contain points of sufficient interest to warrant its insertion at all.*

Miles.—*We are unable to pass an opinion upon the skill displayed by the American surgeons after the battle of Monterey. In the field there are far more difficulties to be encountered than in hospital, and fewer means at hand to overcome them.*

Spectator Medicorum.—*The parties, we suspect, have no legal qualifications. It is no uncommon thing for individuals to state themselves doctors of medicine without any right to the title. We do not think that the Apothecaries' Act can touch them, but an action for damages may be instituted in a case after injury is sustained from improper treatment.*

Dr. Burton.—*The report of the Walsall Union meeting shall appear next week.*

An Edinburgh M.D.—*The London college will admit licentiates of the Apothecaries' Company to examination under certain conditions; these, however, almost amount to a prohibition. Licentiates of the college who are not Oxford or Cambridge men may become fellows, from which privilege they were excluded till within the last few years.*

Mr. S. Dixon.—*The college library is now open.*

A Bartholomew Student.—*The communication is declined with thanks. We are sorry to hear that the ex-president has been indisposed from a bilious attack within the last few days.*

Medicus.—*The case of congenital malformation of the heart has been received, and is under consideration.*

A. M., Trinity College, Dublin, *shall receive a private communication from us in the course of a few days.*

A Young Subscriber, Manchester.—*Question 1. By indictment under the Apothecaries' Act. Two cases have been lately tried, which has removed all doubts upon the subject. 2. No. 3. Any one may prosecute.*

Mr. T. W. Garlike, Rickmansworth, *is thanked for his communication, which shall appear in an early number.*

Dr. John Reid, St. Andrew's University, *will see that his request has been attended to.*

Philo.—*The magistrates have no power to order remuneration to the medical witnesses. We fear our correspondent has no prospect of obtaining redress.*

Fusbos *on medical poor-law remuneration is inadmissible.*

A Member of the National Institute.—*We think it probable that the Government will grant a charter of incorporation to the Institute. Whether the present name will be retained we are unable to say.*

We know of no power or right by which a coroner can prevent the usual post-mortem *examinations sanctioned by the Anatomy Act, and performed in public hospitals.*

Letters and communications have also been received from an Edinburgh M.D.; Mr. S. Dixon; a Bartholomew Student; Medicus; A.M., Trinity College, Dublin; a Young Subscriber, Manchester; Mr. T. M. Garlike, Rickmansworth; Dr. John Reid, University of St. Andrew's; Philo; Fusbos; a Member of the National Institute; Spectator Medicorum; Miles; a Liverpool Surgeon; an Old Subscriber; Dr. Penton; a Sufferer; a Student; Mr. Slocombe; Chemicus; Ignoramus; a Young Surgeon; Delta; B. A.; Kâf; a Subscriber, Liverpool; Mr. G. Gibson, Ulverstone; Mr. Hugh Hastings, Stokenchurch; Mr. Oakshott, Cork; Mr. Hardwicke, Hempnall; Mr. Sanderson, Musselburgh; Mr. Cross, Norwich; Dr. Fripp, Bristol; Mr. Booth, Ashton-under-Lyne; Mr. White, Carmarthen.

THE MEDICAL TIMES.

SATURDAY, OCTOBER 30, 1847.

THE CONVENTION.

THE union surgeons may be proud of their magnificent demonstration of Wednesday; nothing could be better. The meeting was larger than the most sanguine could have anticipated. From two to three hundred gentlemen—the greater number from the country, some from remote districts—was an attendance at once honourable to the union surgeons, and honouring to those acting for them.

But there were other elements that gave a great and unwonted importance to the meeting. The gentlemen in attendance represented more than themselves. As one gentleman rose after another, the fact was evolved that each was the delegate of another meeting. There were, in fact, more than a thousand union surgeons spread throughout the country, present in person, or in representation, at the Convention.

The correspondence in the hand of the Honorary Secretary was another item indicative of the general interest. Voluminous to an extent that took the meeting by surprise, and made perusal thereof quite impossible, yet every letter was enriched with statistical data which, when digested and arranged, must overwhelm opposition, and had, besides, the additional worth of pledging to the Convention the writer's hearty personal concurrence and generous pecuniary aid. In short, all that the union surgeons could do for the Convention they did; and it now remains for the members of the committee to justify—as we are sure they will—the noble confidence reposed in them.

The ground of action is rapidly clearing; every hour brings our business into greater definiteness and tangibility. There can be no longer discussion, or speculation, or hope, about the *per*-case system, which is abandoned by every body in the profession. It has become an established truth, that a *per*-case system means the withdrawal of three-fourths of our medical relief. It is the destruction of a great portion of the present poor-law relief, and eventually a further reduction of the medical officers' salaries. Wherever the plan has been tried it has failed. The guardians make up for its mock-*adequate* payment by largely cutting down the number of cases. An order is only given at the direst extremity, and the result is, that while the sick poor suffer barbarous wrong, the surgeon is in receipt of no better income. Does the surgeon, therefore, do less work? We know the contrary. The pauper, denied an order by the relieving officer, appeals to the medical man, as a kindness and a gift for that which he can no longer ask for as a right and an engagement. What can the well-meaning surgeon do? To save a wretch from death he lends the help which establishes a precedent against his own just remuneration; and thus, in fact, in his own single person, gives gratis a moiety of the district medical relief.

Guardians, indeed, deal so capriciously and recklessly with their responsibilities as the protectors of the sick poor, that there can be no defence for the medical man if left to their sense of what is morally fair, or just. If they can sacrifice, as they habitually do, the chances of health and life of their pauper dependants, to carry out a miserable economy which can be only a matter to them individually of farthings, how can we expect a generous or enlightened course of conduct to the medical officer where no such heavy responsibilities are immediately in question? As an instance of the conscientious manner in which these gentry administer medical relief, we know that, since the general agitation of this question during the last six weeks, the cases of more than one medical officer have been made to fall more than fifty per cent. Why was this? Is pauperism less extensive? fever less prevalent? disease less general? No; the guardians were afraid that we were making out too strong a case against them, and, therefore, whatever the result, the sick poor, were deprived of their customary access to medical relief.

If for so slight a cause responsibilities are forgotten, and the poor injured, what must we expect under a system in which every act of justice to a sick pauper would require from them a fair remuneration to the medical officer? If disposed to deal justly with a surgeon, they have

the opportunity now by raising the salaries; but they decline, as a general rule, to lessen by one iota the fearful amount of remunerative injustice they are now inflicting on him throughout the whole country. We have thus wrong in all phases, where modified justice would not be costly. How vain then, is it to hope right under a per case system, which would necessitate a full justice if adequately carried out!

We repeat, then, the conviction that not another moment need be lost in the attempt to establish a *per case* system of remuneration. A system of extras, however, extended or improved, can be no substitute for bad salaries. They are productive of never-ending ill-feeling between boards of guardians and their medical officers. No bill for these extra charges can ever pass without contestation: the conflict is so humiliating to a man of gentlemanly feeling, that it almost always ends in submission to injustice or a resignation. The plan, too, acts ill in reference to the patient: it is a premium on operations, and often stands in the way of the best modes of treatment. Mr. Beulger's statement to the Convention is an illustration. By removing a patient to the workhouse, to give her, under an operation the best chance of a successful issue, he saved the patient, but lost the extra five pounds. Beyond an adequate salary, the only extra should be midwifery.

Thus, then, the object of poor-law surgeons, is plain, simple, and open. We want an adequate salary, having reference on the one side to the population, on the other to the area of a district.

It would be futile to hope so large a change as this from the guardians. They have had the power for years of proportioning payment to duties, and their tendency has been consistently in the wrong direction. Even the power of the poor-law commissioners has failed in numerous instances to effect even small improvements; and we know, as a general rule, medical repayments are one-half less than what they ought to be according to the authority of the very commissioners themselves—a fact humiliating to the supposed power of the three kings, and monumental of that disgraceful niggardliness which boards of guardians are prone to as a natural instinct. At whatever cost in character to themselves, in purse to their surgeons, or in health or life to their paupers, they will save the rates.

While, therefore, we would not interfere with the local right of election, and, to some extent, that of supervision, we hold that the worst of authorities for controlling the expenses of medical relief are the boards of guardians. The Government, in paying one half of the salaries, have, in a lame fashion, acknowledged this truth, while only vindicating half its usefulness. Let them now carry out fully their own principle; let them free themselves from the anomaly of having men with a half engagement in their service, yielding for large services pecuniary returns disgraceful between man and man, and dishonouring to a Government. There cannot be a more favourable opportunity than the present moment; the poor-law commission is about to assume a thoroughly new phase: the sanitary question invokes the aid of a staff of medical men throughout the country: the Government plan of half payment is just coming into operation: amid all these vicissitudes a vigorous Minister ought to welcome, as a boon, an opportunity of putting the administration of medical relief, through the whole country, on a sound footing, and thus do justice to the pauper, the rate-payer, the medical profession, and the general and more enlarged interests of the nation.

MR. LAWRENCE AND ST. ANDREW'S UNIVERSITY.

"O hominis impudentem audaciam!—
Non sit sine periculo fastus magnum et memorabile."
TERENCE.

THE evidence of Mr. Lawrence, president of the College of Surgeons of England, before the Select Committee of the House of Commons on the Medical Registration Bill, is interesting to all the members of the profession, inasmuch as it makes known to them his opinons in reference to their qualifications and standing. It is to be lamented that this eminent gentleman should be found amongst the number of those who oppose the injurious Registration Bill of his quondam friend, as it will powerfully assist him in his efforts to make it the law of the land. The mere circumstance of a renegade Radical, who has sacrificed liberal principles for his own personal aggrandizement—who has publicly insulted the general practitioners of his college, and who has been hostile to every measure which has been attempted for their advantage—opposing the bill, will induce many to look favourably upon it, who otherwise would have scornfully rejected it. It must be understood, however, that Mr. Lawrence's opposition to this bill does not spring from a desire to avert a single evil from the members of the profession in general practice, but to prevent the Scotch and Irish corporations from being brought too much in competition with English colleges. The question with him and his companions is, How will the measure affect the college funds? and, as they apprehended a falling revenue, they were determined to do all in their power to escape the impending evil. If the council could but have received a guarantee for their pockets, they would have hailed the bill as one of the best measures ever brought before Parliament to effect professional regeneration, as they know that, with a show of liberality, it would be the means of keeping in their present degradation the masses of the profession for years to come.

The manner in which President Lawrence executed his commission may be satisfactory to the gentlemen who sent him there, but it reflects no credit either upon himself or them. In his examination he appears more like a costermonger than the first man in a learned corporation, for he is loud in the praise of his own commodities, and equally vociferous in condemning those of his neighbours. With the exception of the college in Pall-mall, the other medical corporations of Great Britain were put down as little better than useless to the profession, while the University of St. Andrew's was condemned as one of the most worthless that ever existed in a civilized country. It is not our intention here to enter upon a defence of these institutions *per se*, but to show that Mr. Lawrence, living himself in a "glass-house," should not be so foolish as to throw stones at others.

In his attack upon St. Andrew's he says, "I should think that it would be very improper to allow a person in possession of a degree from this university, which I assume to be a place without a medical school and without a hospital, to practise his profession anywhere; and, if there is to be any law restraining parties from practising, that is a thing which ought to be prevented. I do not think that a St. Andrew's degree, conferred as it is present, is a proper authority for a party to practise here, or, indeed, anywhere. There would not be any evidence, to my mind, to prove such a person would be a fit candidate for the office of surgeon or of general practitioner in the smallest poor-law unions in England. I think that it would not tend to the welfare of the poor to allow persons with such qualification, or rather want of proper qualification, to practise upon the poor. I can see no public advantage to be derived from giving such persons any power of practising in England." Polyphemus, when paying his addresses to the lovely Galatea, reckoned it no small personal advantage to be possessed of only one eye; the surgical Cyclops of Lincoln's Inn-fields does not indeed assure us that he is a monoculus, yet he evidently sees but one side of the question, for which he happens to be prepossessed. The nymph before whose charms he has prostrated himself has none of those imperfections which disfigure the beauties of her sisters. So bewildered, indeed, is the venerable swain with the charms of his mistress that her very imperfections are themes for admiration. The unfortunate virgin of the North, because she is without those precious ornaments—"a medical school and a hospital"—is considered a worthless strumpet, wooing the members of the profession to her embraces, only that she may dip her fingers into their breeches pockets. Those, however, whom love has not blinded, not having received any favours from Mr. Lawrence's damsel, consider her virtue as being of a very questionable character. Her hospitals and schools have been made sources of aggrandizement to those whom she delights to honour, for it is a strange circumstance that those who are received into her especial favour are those who hold offices in one or other of the London hospitals. We have Lawrence and Stanley at Bartholomew's, Green at St. Thomas's, Key at Guy's, Keat at St. George's, Andrews at the London, Cooper and Liston at University. These are the gentlemen on whose behalf Mr. Lawrence spoke, when he reviled the Scotch university for being so silly as to elect M.D.'s without compelling the candidates first to learn the "healing art" from some of the members of the *senatus academicus*.

From the statement of the ex-president of the English College of Surgeons we should be led to suppose that a very stringent examination is always undergone there by the candidates for the diploma. The circumstance, however, is still fresh in the minds of the profession, of the Taunton pastry-cook having, within the short space of thirteen months, so furnished his intellect with surgical knowlege as to abundantly satisfy the worthy Solons who tested his abilities; he was, therefore, duly installed a member of the college, and to this day exercises his abilities in a homœopathic establishment in the town of Taunton. Mr. Lawrence, moreover, speaks in very disparaging terms of the general practitioners of this kingdom. Himself and friends have on a former occasion announced that they are only fit for "the ordinary exigencies of surgery," and a general impression prevails that there has been a greater desire amongst the members of the corporation to obtain fees than to advance science. We have before us a letter signed "a Looker-on," in which our correspondent says, "In one district I know of a saddler, an ignorant agriculturist, and a great number of druggists' assistants who have obtained the college diploma." This is one of the evils of which the profession so frequently and so loudly complains: that there are annually admitted within its pale members

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whose education is so defective that it would be impossible for them to obtain a diploma if the surgical authorities were faithful to the trust committed to their charge. It is this very circumstance that has overstocked the profession, and induced that competition which has rendered its members less respectable in the eyes of the public than those who are engaged in the practice of the law or the study of divinity. It is this which has given such an intensity to the desire for reform as to make the profession ready to accept any measure first proposed which promises only a small amount of good, thereby endangering a permanent and beneficial settlement of the important subject. If the English College of Surgeons had proved herself a nursing mother to the profession; if she had on all occasions shown herself a stanch supporter of a high standard of education for her diploma, there would have been some appearance of propriety in Mr. Lawrence giving the venerable body of St. Andrew's a stout pull by the nose. Now, however, he has done it with a very bad grace, for his *dura mater* has only moved as the Blackfriars Corporation has goaded her forwards.

The attack which has been made on the university has called her forth in defence of her character, and in addition to a letter from Dr. Reid, addressed to Mr. Lawrence, we have had transmitted to us a paper in reference to the qualifications and success of those who have been candidates for the degree. Here we are informed, that "for several years after the Senatus instituted the present regulations for granting degrees in medicine, one out of every five candidates was remitted to his studies. Of late, those who have presented themselves have been of a superior order, but still the average number of those remitted to their studies within the last eleven years has been nearly one out of every seven. At the last examination five out of twenty-eight, or nearly one in five, were remitted to their studies; and one of them who held the diploma of the Royal College of Surgeons of London, and who had been several years in practice, was remitted to his studies for a second time. At the last three examinations, seventy-one candidates were examined, and of these, twelve, or rather more than one out of every six, were rejected. Of these seventy-one, there were thirteen who presented no diploma from any of the Licensing Medical Boards of the three kingdoms; but who possessed all the preliminary qualifications prescribed by the university, and six of these, or nearly one-half, were rejected. The other six rejected candidates were all members of the College of Surgeons, London, and some also held the diploma of the London Apothecaries' Company. Of the whole seventy-one candidates, forty were members of the London College of Surgeons; thirteen members of the College of Surgeons, Edinburgh; four were licentiates of the Apothecaries' Company; and one a licentiate of the Faculty of Surgeons and Physicians of Glasgow. In the year 1840, thirty candidates appeared, and of these twenty-four passed, and six were rejected. Of the six rejected, four were members of the London College of Surgeons, one of the Edinburgh College, and one possessed no diploma."

From the number of rejected members of the London College of Surgeons, it would appear that the university examination is quite as searching as that of the college; or, if we are to take the gross amount of those plucked at St. Andrew's, and comparison be made with the unfortunates of Lincoln's Inn-fields, we should be led to pronounce a verdict in favour of the former. It is not for us, however, to decide the relative merits of the two institutions, as the number of the rejections, after all, is but a fallible criterion of an efficient examination. We consider it more out province to advise Mr. Lawrence to exhibit a greater concern for the honour and welfare of the members of his college than he has hitherto done, and less anxiety to find fault with other licensing bodies. If he would advocate the emancipation of college members, the establishment of a liberal education for all surgical candidates, and a fair examination for the diploma, posterity would honour him, while his bilious eructations against Scotch universities will only redound to his present and future disgrace.

With regard to the *curriculum* of the university, we must acknowledge that it appears to us capable of much improvement, being below par when compared with that of the College of Surgeons. It is in consequence of this that the diploma of the university has been considered by some in speaking title for the professional acquirements of the possessor. It will not be out of place here to suggest, also, that candidates for degrees in arts should be compelled to undergo a more searching examination than has hitherto been the case. We have been led to understand that some attention is being given to the subject by the Senatus, and we trust that the future Bacs and M.A.'s will of a truth be learned in "literis humanioribus." There is a mania at the present time for academical titles; those who have the power of conferring these should be careful that their diplomas are not fudge and their possessors not impostors. A trying time is coming, and Heaven forbid that ancient seats of learning should then be found unfaithful stewards; their safety requires that they should move, see how matters stand with them, for it would be a subject of deep regret for institutions, venerable on account of their antiquity, to be cast aside as worthless, and their places occupied by others younger but more circumspect.

EMIGRANT SHIPS AND TYPHUS FEVER.

It is a source of no small satisfaction to us to know that the observations which we considered it our duty to make, in reference to emigrant ships and their passengers, have been productive of changes which must eventually prove of infinite benefit to those who journey across the Atlantic in search of a settled habitation on some part of the great western continent. The Government has been roused from its lethargy, and merchants have showed that cupidity has not entirely obliterated their humane feelings. Already a marked change has taken place in the internal arrangements of many of the passenger vessels; and, as a natural consequence, a decided improvement has taken place in the health of the emigrants.

We learn from a New York paper that the ship Emma Watts arrived at New York on the 6th of last month, in forty-one days, from Liverpool. She brought 165 emigrants, without having a single case of sickness on board, which can only be attributed to the fact, that the passengers and vessel were kept clean. On leaving Liverpool, the captain constructed a large bath on deck, in which he compelled both men, women, and children to clean themselves every day. Their quarters between decks were likewise scrubbed and washed every morning before fires were lighted, and then chloride of lime was thrown into the crevices, vinegar steamed, alum put into their drinking water, ventilation, and other precautions used to prevent sickness. The result of these efforts, so vigorously enforced, was, that not a single case of sickness occurred. The health officer at quarantine pronounced them the finest-looking passengers he had seen, and the ship was allowed to come immediately into the city. The conduct of the captain on this occasion is deserving of praise, as he has unquestionably saved a number of lives, and prevented much misery, besides setting a good example for others to follow.

We have here a striking proof of what ventilation and cleanliness will do in promoting the health of persons at sea; and such an instance should stimulate persons in authority to rigidly enforce every measure which is not only calculated to check the progress of fever, but eventually to annihilate it. The terrible mortality which for months has prevailed amongst emigrants is to be attributed, in a great measure, to the crowded state in which they embarked. It may be that previous to this constitutions had been weakened by privations, and the seeds of disease planted within them; but for these to effectually develop themselves certain agents are necessary. These the holds and steerage of the passenger ships readily furnished, giving a virulence to disease by which it not only destroyed numbers, but acquired a power of propagating itself in localities where its victims, for a season sojourned.

Attempts have been made to attribute to the Irish famine solely the mortality and fever to which we now refer; if, however, our statements on former occasions have been correct—and no one has attempted to deny them—then will it be seen that foul holds, filthy steerages, and improper food must be taken into the account also. It is a satisfaction to know that good often arises out of evil; so, if the recent plague amongst emigrants should make Government inspectors more vigilant, marine laws more stringent, and merchants more humane, fever on board ship, like sea scurvy, will become as rare in its occurrence, and as mild in its character, as neither to excite the fears nor baffle the skill of the medical profession.

NOTICE.

It is desirable to publish the assurance that the very many documents that have been sent to the Convention will severally receive the most full and deliberate attention. The committee appointed by the Convention will meet on a very early day to take them into consideration; and it is not impossible that, while systematised for Government representation, an analysis of their varied contents will early appear in the columns of The Medical Times.

CONVENTION OF POOR-LAW UNION OFFICERS.

The above meeting, which was attended by about two hundred poor-law medical officers, was held, according to announcement, at the rooms of the National Institute, in Hanover-square, on Wednesday last, at half-past three.

Dr. Burton, of Walsall, was called to the chair. In introducing the business of the assembly Dr. Burton observed that the object of their meeting was of no less importance to the public than to the profession. It was most desirable that the medical attendants to poor-law unions should be placed in a position where they might not be straitened as at present, in consequence of being remunerated in such a way as caused their interests and the honest, humane, and faithful dis-

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charge of their duties to clash. He hoped that the rate-payers of England would be ere long induced to perceive the justice of the claims of the poor-law medical officers, with a view to the removal of the state of things of which they had now to complain. In order to carry out the purpose for which they had assembled, he recommended to them temperance in all their observations, and the adoption of such a course as would not call forth any individual enemy throughout the kingdom. (Hear, hear.)

The Secretary, Mr. T. P. Healey, read the requisition calling the meeting, and at considerable length described the course which had already been adopted for the purpose of ameliorating the present system of poor-law medical relief, which was injurious to the public interests, as in fact it placed the interest of the pauper and of the medical officer in antagonism. The medical officers were extremely desirous to be placed in such a position as to be enabled to supply the sick pauper with those necessary medicines which were considered indispensable in the case of wealthy patients. [Those views were embodied in resolutions adopted by the medical officers of the various unions throughout the country, and were very lucidly described by the secretary.] The number of meetings which had been held by medical officers of poor-law unions throughout England and Wales was such as to show an almost universal feeling amongst those gentlemen that the present system of remuneration was altogether imperfect and inadequate. At Walsall the resolutions recommended payment of medical officers by a salary, calculated from the registers of sickness and mortality in the several unions since 1837, and liable to be reviewed at stated periods; and that, if it should be thought desirable to continue, as at present, a supplementary table of fees for cases requiring an unusual exercise of surgical skill and energy, or an unusually long or expensive attendance, those fees should be fixed by the councils of the College of Surgeons and Society of Apothecaries, or a committee formed of members of those bodies. Meetings had been held at Matlock, Halifax, Wells, Nottingham, Walsall, Prescot, Thame, Ashton-under-Lyne, Nantwich, Northleach, Oswestry, Andover, &c. It was found impossible to go through all these communications in public; it was stated that there was scarcely a union surgeon in the country who had not communicated with the gentlemen connected with this movement.

The Secretary also read letters of apology for absence, and expressing concurrence in the object of the convention, written by Dr. Heygate, president of the Provincial Medical and Surgical Association; Mr. Calkaway, Dr. Watson, Dr. Todd Thomson, Mr. Guthrie, and Mr. W. W. Cooper.

The Chairman informed the meeting that the correspondence received by the secretary, and the account of public meetings held, were so voluminous that the reading of them would occupy too much of their time. He (the chairman) should, therefore, if the meeting were satisfied, introduce the gentleman who had undertaken to move the first resolution. (Hear.)

Mr. Daniell, of Newport Pagnell, then came forward, and moved the following resolution:—"That the medical men charged with attendance on the poor are required to be thoroughly and practically acquainted with every branch of their profession; that they are liable to be called at the shortest notice, and without assistance, to treat the severest form of disease, and the most formidable injuries which every species of accident may produce, as well as to attend the most difficult and appalling cases which obstetric practice can present. That in the discharge of these duties they have not only to contend with the anxieties inseparable from such a weighty responsibility, but are brought into situations the most trying and repulsive, not only from the multiplied annoyances which attend them, but from concentrated contagion and other causes of disease to which many of this valuable class of men have been victims; that the sacrifice of time, labour, and rest which they are required to make is great and unlimited; and that the pecuniary expenses necessarily incurred in visiting their patients and supplying the means of relief are often unavoidably heavy. That, in addition to these trials, inherent to their office, there are others of a moral character very liable to be concomitant with them, and of a kind most painfully to affect minds of a highly honourable and sensitive class, to which it is sufficient merely to allude. That the mode in which these services are required to be performed, and the scanty remuneration awarded to the medical men engaged in them, constitute a grievance which cannot be too strongly stated, and for which redress should earnestly be sought. That in many instances the number of persons amongst whom the casualties of disease and accident may occur, and the area to be traversed in visiting the patients, are so great as to render early, constant, and satisfactory attendance physically impossible. That the pecuniary remuneration, being granted on no fixed principle or scale, varies greatly in different localities; but that in almost all it is so disproportionately small, and in very many of them falls so far short of the expense incurred, as to render a large portion of the medical relief bestowed on the sick poor a tax on individual members of the medical profession, instead of resting, like clothing, food, and other forms of relief, upon the ratepaying parishioners in general." One of the peculiar privileges of Englishmen (continued Mr. Daniells), and one of the blessings which belong to a free and enlightened Government, is the facility which it affords its people of representing their wrongs and of granting them redress. To assume a character of indifference, to be careless to the legitimate claims of any section of the community when those claims are fully and fairly established, or to turn a deaf ear to undeniable truths, would argue a measure of moral turpitude and guilty negligence which I should be sorry to attach to any state. (Hear, hear.) Indeed I cannot believe in these enlightened times that any Government will wilfully do wrong. The difficulties which beset legislation are obvious enough, and there may be cases where, to accomplish general good, great partial evil may prevail. The income-tax is an example of this kind of evil. I attach no improper motives to the parties who introduced that measure, but I, in common with my professional brethren, writhe under its exactions. The object, however, of this convention of union medical officers, is to solicit the aid of Parliament, not to abrogate a law, but spare us an infliction for which no law exists. Our aim is to solicit Government to step between us and an arbitrary and grinding system, where the will of men, and not the laws of our country, is the paramount authority. We are met to claim from the Legislature their kindly assistance, so to organize the principles of medical relief to the sick poor, that the latter may reap the benefit of good advice, and that the advisers themselves may be remunerated to an extent becoming their characters as gentlemen, and worthy their consideration as skilful and intelligent men. (Cheers.) I am no enemy to a proper system of economy. I laud every institution that has an eye to the careful expenditure of its funds: but there is a wide difference between a griping parsimony and a proper economy—the former invariably inflicts evil upon itself, while it fails not to render wretched the victims of its baseness. (Cheers.) We all know that, under the new Poor-law Bill, a board of guardians has been appointed in every union to transact the business appertaining to that union. We also know that that board is composed of a heterogeneous compound of character, of men as versatile in their powers and capacities as it is possible for versatility to go, and that perfect union of opinion amongst them would be a circumstance scarcely to be anticipated, both anomalous and extraordinary! You will remember, too, that it is not the weight of intelligence which carries the day in these assemblies. No, it is the majority of votes. I wish not to reflect upon these gentlemen—doubtless they are worthy and excellent personages according to their vocation, but I will say that intellect is not so rife amongst them as to shine on all occasions with extraordinary brilliancy. If, then, there be a lack of this peculiar commodity—if the majority of that board be composed of men of very ordinary capacities, of limited intelligence, of narrow views and narrow conceptions of the dignity of mind—how shall they grapple in their dealing with men who offer mind as the article of barter? Do men in general put a high value upon that which they do not understand? Are they not disposed rather to underrate—nay, to consider as nothing that which is not tangible like a bale of goods, a sample of corn, or a fat beast? (Cheers.) When, therefore, the medical officer is to be engaged, these gentlemen have an immediate eye to a rigid system of parsimony, and without a due reference to the quality of the material—for of the quality they know nothing—their object is to get what they need at the cheapest rate. (Hear, hear.) Are medical men in the conventional usages of society different from others? Will they willingly abandon their own interests, and, with a Quixotic spirit, encounter dangers and difficulties for the mere love of it? (Hear, hear.) Will they visit the houses of the poor, dispense the peculiar blessings of their order, hang over the sickbed of contagion, and breathe the poison of pestilence—will they watch the suffering victim, and smooth his dying pillow—will they be ready at a moment's warning to leave their cheerful hearths, or in the bitterness of an inclement season quit their beds, to ride over plain and upland, by fearful precipices or gloomy ravines, entering the squalid habitations of destitution and misery amidst foulness and filth—to allay the anguish of disease, or to check the progress of some awful and destroying malady? To the honour of my profession, be it said, they will. But is it consistent with the principles of humanity—is it in accordance with the duty which man owes to man, that such services should be unrewarded, or that they should be paid for at a rate which puts profit out of the question? I must reiterate what I have said elsewhere, that there are venal men in our profession—who will doubt?—for there are venal men in every profession. Such men contract with a board of guardians for attendance on the poor, but they contract with a mental reservation that they will not be losers. Who then is the victim? Why, the poor sufferer who is deprived of what might benefit him, because valuable remedies are withheld. In a secondary sense, the board of guardians too, for the protracted illness of the poor patient, protracts also his weekly payments, and swells out the relieving officers' accounts far beyond what would have been an equivalent for the better duties of a medical officer. Oh! that men would see the cogency of truths like these, for they are damning evidences of a bad system. (Cheers.) But it might be argued—give us evidence that you are ill paid, prove that boards of guardians are parsimonious, or that the commissioners are wanting in attention to your claims. I make no doubt that many gentlemen here present are prepared with facts to illustrate my assertion, viz., that in the majority of the unions of this kingdom the salaries of the medical officers will not pay for the value of medicine, if dispensed and charged by an ordinary druggist. But I will illustrate my position by taking the Newport union as an example. I have here a list of parishes, the amount of population, and the yearly salaries paid to medical officers:—

NEWPORT PAGNELL UNION, 1847.

Medical Salaries.	Parishes.	Population.
£2 0 0	Astwood	242
4 0 0	Bletchley	410
2 10 0	Bradwell	874
0 10 0	Brafield	83
6 10 0	Bow Brickhill	566
9 0 0	Great Brickhill	721
4 10 0	Little Brickhill	563
2 0 0	Broughton	168
3 0 0	Castle Thorpe	365

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4	0	0	Chicheley	245
2	0	0	Clifton Reynes	213
9	0	0	North Crawley	865
5	10	0	Emberton	658
1	10	0	Gayhurst	116
16	0	0	Hanslope	1553
1	10	0	Hardmead	83
3	0	0	Haversham	283
1	10	0	Lathbury	127
5	0	0	Lavendon	669
4	0	0	Great Linford	449
1	0	0	Little Linford	64
3	10	0	Loughton	361
4	10	0	Milton Keynes	329
3	0	0	Moulsoe	296
18	0	0	Newport Pagnell	3568
1	10	0	Newton Blossomville	264
6	0	0	Newton Longville	559
17	0	0	Olney	2349
4	10	0	Ravenstone	416
4	0	0	Shenley Church End	220
6	10	0	Sherington	856
3	10	0	Simpson	551
0	10	0	Stantonbury	42
8	10	0	Stoke Goldington	855
7	10	0	Fenny Stratford	763
2	10	0	Tyringham and Filgrave	206
2	0	0	Walton	103
2	0	0	Warrington	97
3	0	0	Water Eaton	275
20	0	0	Wavendon	846
3	10	0	Weston Underwood	438
0	10	0	Willen	97
1	10	0	Great Woolstone	94
1	0	0	Little Woolstone	115
3	10	0	Woughton	333
£216	0	0	Total	22,850

You must bear in mind, gentlemen, that many of these parishes are heavily burdened with poor; that in many instances they are five and six miles from the residence of the medical officer; that there are many toll-gates; and that, in consequence of the high price of provisions last year, distress and destitution prevailed in no ordinary degree, and as a consequence disease prevailed also. You may be disposed to ask how gentlemen valuing their attainments, putting the slightest estimate of worth upon their powers, and anxious to support the dignity of their calling, could possibly accept of appointments which, in the first place, could not be remunerative, and in the second, was degrading to their dignity and character. The truth is, that from year to year we have been led to expect a change—we have been induced to think that so crying an evil must meet with its remedy, from the hands of those whose especial business it was to correct abuses. In the very early stages of our career—almost at the beginning of the new law in our neighbourhood—we, the medical officers of the union, presented a remonstrance to the board, setting forth our claims for more ample remuneration. But this remonstrance failed in producing any very beneficial effect. We next memorialized the poor-law commissioners, and they were courteous and attentive, for they furnished us with a very polite and very laconic reply, stating they had sent our memorial to the board. Doubtless it experienced the fate there which certain bills do in another house—ordered to be read that day six months. (Laughter.) Yes, there can be no doubt that that poor memorial served to comfort and warm the gentlemen so graphically described by Dickens as wearing white waistcoats, or some veritable Bumble, while it blazed and crackled on the board-room fire. (Cheers.) Still we did not despair.

"Not by failures vex'd,
And even certain to succeed the next."

we resolved upon a new expedient. We determined to meet—we determined to exhibit our magnanimity, and, despite of the sacrifice of no small proportion of our quarter's salary, we positively ordered a dinner at the principal inn in the town—

"A dinner of the best;
Lo! to a turn the different joints were drest."

I do not think any of us grew pot-valiant on that occasion, but we came to a conclusion that we would go in a body to the board of guardians, and try the effect of *viva voce* representation. By a strange obliquity of judgment I was made the mouthpiece of the party, and to the best of my abilities I endeavoured to show the wrong which each of us had sustained. As far as I was individually concerned, I proved beyond the possibility of contradiction that I had during the last twelve months dispensed medicine to the poor, and charging for it at a rate which a druggist would charge—allowing nothing for journeys, for time, for skill—I was absolutely minus £24. (Hear, hear.) Did this representation produce any effect? Truly it did; for the commissioner who was present overwhelmed us with high eulogistic compliments upon our gentlemanly behaviour, for our temperate exposition of facts, which he declared, in all his experience of similar complaints, had no parallel. He intimated, moreover, that he should invite some of us to dinner when he next came to Newport Pagnell, that we might quietly talk over the business, with a view to a satisfactory arrangement. Alas, for our organs of gustativeness! The salmon has never leaped into the net, or the mutton fattened in the pastures, which was to grace our table on that auspicious day. (Laughter and cheers.) The dinner and the consultation found a grave in forgetfulness, and we are still as we were. So true it is that the best motives and principles are frustrated in their effects by the baleful influence of procrastination. As a keen satirist of the last century says, when royalty passed through a certain city—

"He gied the *hospital* a ken,
'Twas all he gied; 'but then,' quoth he,
'I'll something gie, my lord, d'ye see,
When I come here agen.'"

(Cheers.) But enough of complaints. How are these evils to be remedied? One thing is obvious; we must remedy them ourselves. We have now assumed our proper position. We come not like factious men to violate laws, or break the bonds by which society is united. We have combined for a legitimate purpose; and it is our intention to carry our grievances where they ought to be redressed—to the fountain of law itself. And what is it we ask? Simply that which it conceded to the lowest subject in the realm—a fair remuneration for our labours, an adequate compensation for arduous and painful duties imposed upon us. And sutely we have a high justification, for is not "the labourer worthy of his hire?" (Hear hear.) Let us, then, represent to the Government that medical remuneration for attendance on the sick poor legitimately belongs to them. That they are in a position to take upon themselves that responsibility, because they take upon themselves to pay half the expenses. (Hear, hear.) Let us urge upon them the necessity of a fixed and settled principle, either to tax the parishes according to the amount of population, or to employ some distinguished actuary to form a correct scale of charges according to the returns of sickness and mortality, bearing in mind extra charges for mileage according to the distance which the medical officer has to travel. This, in my opinion, is a most essential consideration, and it will produce one good effect, for it will necessarily limit the districts within suitable and proper dimensions, and put an end to that preposterous practice of engaging medical officers, whose residences are so remote that their services are scarcely available. (Cheers.) Contrast the conduct practised towards us, as medical men, with that adopted towards the clergy. No one has a higher reverence for the clergy than I have, but I cannot think that the duties of a clergyman are superior, or even equal, to ours. I ascertained the other day that in my own vicinity the medical officer had only £80 per annum, while the clergyman had £200. Surely, I thought, there can be no comparison between the services of the one and the other. (Hear, hear.) The clergyman preaches a sermon on a Sunday, and perhaps occasionally visits the sick, but the medical man is frequently called up in the middle of the night to perform the most dangerous professional duties. Are we not as well educated as the clergy, and is not our position in life really as valuable as theirs? (Hear, hear.) I grant that the soul of man is superior to his body, but a great deal may be said about his body too. (Hear, hear.) I do not object to the clergyman getting £200, but why should not the medical officer get £200 also? And here let one fact be mentioned without stating where it occurred:—A poor woman had typhus fever. The medical man considered that she was not in a condition to receive the clergyman's visits, and could not advise him to go. But she got better, and then she had a desire to see him. His answer was, "No, not it is fever. I shall not go; I might take it home." (Hear, hear.) No one present would grudge a clergyman his fair salary (hear, hear), but it ought to be remembered, in comparing the two cases, that a medical man had not any such privileges as this. (Hear.)

Mr. Pearson, of Woolton, Lancashire, chairman of a meeting at Prescot, in seconding the motion, stated that he had to represent the case of a union which contained a population of 14,700, and the medical officer had £80 a year. In St. Helen's the population was 25,000, salary £50; Rainford, 2000, salary £10. In the district of Much Woolton, where he (Mr. Pearson) was the medical officer, the population was about 7000; 1600 of them lived three miles from his house, and 600 of them five miles; and he had the liberal sum of £10 a year. (Shame.) Last year he caught the fever which so much prevailed about Liverpool, and was obliged to pay an assistant at the rate of £50 a year for doing that for which his salary was £10 a year. (Hear.) He felt compelled to provide for the performance of the duties he had undertaken. The injustice and partiality of the guardians showed itself in their giving a bonus of £50 to the medical officer of the Prescot union (their own town), and they also wished to increase his salary, but the commissioners would not sanction so partial a measure. But, when he applied a few weeks ago for an advance of salary, they said then, "No, you may give up your office." (Shame.)

The resolution was carried unanimously.

Mr. Tasker, of Melbourne, moved the second resolution—

"That the medical relief at present provided for the poor must be faulty and inadequate as respects both the patients and the public, is the necessary consequence of the errors which have been pointed out as inherent in the system itself. That though an immense amount of unrequited professional assistance is afforded, the limits of physical capability and of pecuniary resources preclude medical officers from the possibility of giving prompt professional assistance in many instances. That it results from these defects in the system that patients who might by early and efficient treatment be quickly cured or relieved, and placed in a situation to support themselves and their families, may become a charge on their parishes for aggravated sickness and burial, or for protracted relief to themselves and their families. That the extra expense is not confined to that which might be made apparent from the parish books, but tends to swell the sums expended in hospitals, dispensaries, orphan asylums, and other institutions, besides an invaluable amount of individual charity."

The poor-law medical officers were willing to do their duty to the utmost of their ability; but it was not in the nature of man to work zealously when underpaid. The poor must, therefore, suffer so long as the medical officers were not adequately remunerated. (Hear.) The poor-law commissioners were aware of this. He had no fault to find with their instructions; what he complained of was, that they did not endeavour to see them carried out. In reference to the offer of low salaries, the commissioners remarked—"Its general adoption would provide the unions with a set of officers deficient in nearly all the qualities which they ought to possess. They would be tempted by straitened circumstances to accept the lowest amount of pay on

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which they could hope to subsist in decency." Again, the commissioners said:—"The remuneration of medical officers should be such as to ensure proper attention to the patients, and the best medicines; and the guardians would doubtless perceive that, unless the medical officers were properly remunerated, no vigilance on their part could secure adequate attention to the poor under their care." (Cheers.) In the minute of the commissioners, bearing date June, 1839, they said—"The commissioners are disposed to give much weight to the concurrent testimony of the witnesses examined before the House of Commons on the subject of medical relief, and they say that the remuneration should be such as might afford the practitioner a payment of 6s. 6d. per case, subject to be augmented if the district were extensive, but that it would not be necessary to extend the remuneration beyond 10s. He (Mr. Tasker) had been attending patients at the rate of 1s. 3½d. each. Having been made acquainted with the instructional letter of the commissioner to the boards of guardians, he requested an increase of salary, and obtained £10 more. His salary was raised from £30 to £40. This would allow him about 2s. for each case. He made repeated applications to the commissioner for an additional increase, but without any result. He had frequently seen cases, where, not exactly from neglect, but from the operation of the poor-laws, the patient had been very much injured, and his health impaired, by not having proper attention and proper things to support him. (Hear.) He (Mr. Tasker) had himself reminded the guardians, "If I chose, I could withhold medicines: I could protract fever several weeks, and, by not securing the patient's early return to health, I might lay the ground for long-standing disease; the law gives you no control over my judgment." All that was asked was, that they should act on principle, as they expected medical men to do. (Hear.) He (Mr. Tasker) had done his duty by the guardians; he challenged them to make a charge against him; and, therefore, he was fearless alike of them and the commissioners. Having dwelt for some time on the evil consequences resulting to the poor from the want of sufficient medical attendance, owing to the parsimonious conduct of the boards of guardians. (Cheers.) Mr. Tasker resumed his seat amidst great cheering.

Mr. Cantrell, chairman of the meeting at Matlock, described the manner in which the union duties were apportioned in his neighbourhood, at the introduction of the present system. The district, as then constituted, was twenty-one miles long and ten broad; and the medical practitioners of that neighbourhood had, considering the extent of the district, took it for granted that one would be allowed to take it and divide it amongst the rest with reference to the locality of their residences. At the meeting of guardians for election, they were informed "that one must undertake" the whole, and that no underletting would be sanctioned. Not knowing what to do, the medical gentlemen doubled their tenders and sent them in, telling the guardians that under such an arrangement, it would be impossible that the poor could be properly attended to, but that they would do the best they could. In that district the surgeon lived ten miles from the extremity of his district, the result of which was, the expense of sending for him was greater than the cost of the medicine, and so far it answered very well for the gentleman who undertook it. That district was, very properly, divided now. (Hear.) The rates were certainly increased by an inefficient attendance on the poor; and nine-tenths of the medical officers were losing money by the poor, but were doing their duty by them. The system was bad, but in truth there hardly seemed any system, for in one union the payment per case varied from 1s. to 6s., and on the population it varied from £4 to £22 per 1000.

Mr. White, senior officer of the Holborn Union, said that in his district the number of sick cases in 1840 was 738; the population is 44,300; in 1846 the number of cases was 1964, or nearly double that of 1840. In 1846 the parish of St. Sepulchre's Without was added to the union. The charge of the sick of the union was committed to three surgeons, who, besides their other duties, have to attend midwifery cases. He believed that this was the only union in the kingdom where the guardians would not pay for midwifery cases. (No, no.) When he was examined before the commissioners, and those gentlemen found that midwifery cases were not paid for, an arrangement was made by which £20, the sum which it was calculated the midwifery cases were worth, should be allowed for them; but they at the same time took care to deduct the same sum from the regular salary of the medical officer. (Laughter, and cries of "Shame.") The higher class of cases, also, were sent to the hospitals, which, perhaps, was a proper arrangement, but one which still further diminished the value of the appointment. Against the unfair proceedings of the guardians in dealing with their salaries the medical officers protested. Meetings of the guardians were held on this subject on three occasions, and the justice of the case was seen so clearly that a postponement of the subject was the only means of evading the concession. He thought, with the gentleman from Wells, that we must never expect anything from the guardians. In the quarter ending Michaelmas last he had 845 cases, nearly the same number that he had in a whole year when first appointed; and in the three first quarters of this year the number of cases was 2027. The remuneration which he received gave 8½d. per case. Last week he had 80 out-door and 97 in-door cases, making 177 cases. Supposing there had been 160 cases, just to make it even, it would be ½d. per case per day. (Hear.) The clergyman in that workhouse had £80 a year; he attended twice on Sunday, and occasionally in the week; he was not overpaid (hear); but look at the clerks of the boards of guardians. (Hear.) In the Holborn Union the clerk had something like £250 a year, and could go out of town in the summer; the clerks might not be overpaid, but they were getting more than double the medical officer's pay, for about a third of his work. It was said, "Oh, if you get to attend these unions the rich will employ you." No such thing (hear, hear); it was impossible. His (Mr. White's) income, as a private practitioner, had decreased £300 a year since he had this appointment. (Hear.) Could he be restored to the practice he had then, he would throw this to the winds. (Hear.) Then it was said, "Oh, if you will not do the work, others will." That was not the answer of an honest man. (Hear, hear.) But the force of public opinion was being brought to this subject. The press was stirring. The *Times* had acted nobly. (Much cheering.) It was not the wish of the public that a medical man should be worse paid than the veterinary surgeon who took charge of a gentleman's horse; and it was only necessary to open the eyes of the Government and of the commissioners, and they would do what was just. (Hear, hear.)

Mr. Ebsworth, of Bulwell, deputed to attend by the officers of the Basford Union, could confirm the remark just made; he had a horse lamed the other day, and he had to pay 24s. for three weeks' attendance; whereas he and his medical brethren received from 1s. to 1s. 3d. per annum per case. How could the poor be properly attended to at that price? The guardians stated that the extras made up for the salaries; but those extras were kept down, and much danger was caused to puerperal women, because those orders were delayed by assistant-overseers. (Hear, hear.) In his union there was only one medical officer who had not to keep a horse for the service of the poor; and that could not be done under £25 or £30 a year. The cost of drugs was reckoned at £5 for every 100. Here was one case: area, 9000 acres; population, 4429; patients in the year, 416; actual expenditure, £45; salary, £30. (Hear, hear.) It was impossible that, at the low price fixed, the beautiful discovery of Jenner could be properly carried out. (Hear.) Amputation of a limb in the workhouse was not paid anything extra for. (Hear.)

Dr. Webster, of Dulwich, said that, besides a good cause, they had right principles to proceed upon; he considered that they were indebted to Mr. Wakley. (Much hissing and some counter-cheering followed the mention of Mr. Wakley's name, which was terminated by the intervention of the chairman, who trusted that no expressions of personal ill feeling would be indulged in; the cause was too important to be bound up with the expression of personal unpopularity.) Dr. Webster continued: The returns Mr. W. moved for, he thought, must furnish the basis of the committee's operations. There were three important indications to be fulfilled: first, get rid of the control of the guardians; then, seek to establish a proper system of medical superintendence, such as existed in the army and navy. Why should more care be taken of the soldier and sailor than of the peasantry at home? Let there be a paid inspector, who might also be called in for consultation in difficult cases. Let there also be periodical returns of the state of health among the poor. Then let them seek a proper remuneration. The gentlemen whom he saw were not half paid—no, not a quarter paid. He was glad that the press had taken the matter up; he was particularly glad that the *Times* had done so, for there never was a great question set about by the *Times* but was carried, if they were in the right, as they generally were.

Mr. Lord, of Hampstead, moved—"That this convention pledges itself to seek, in the most persevering but temperate manner, the redress of the grievances which have been set forth; that for this purpose a subscription be raised, and a standing committee be appointed to collect and digest information on the subject, to memorialize the Secretary of State for the Home Department and the Poor-law Commissioners, and to communicate with the College of Physicians, the College of Surgeons, the Society of Apothecaries, the Provincial Medical and Surgical Association, and the National Institute of Medicine and Surgery, in order to obtain the active co-operation of these bodies. That the committee be empowered to reassemble the convention, and to take such other steps for the promotion of the object confided to it as it may deem expedient, and that the following gentlemen be the committee:—

James Heygate, M.D., F.R.S., President of the Provincial Medical and Surgical Association.
John Barton, M.D., Walsall.
Thos. Hodgkin, M.D.
G. J. Guthrie, Esq.
Nath. Clifton, Esq.
Wm. Cantrell, Esq., Wirksworth.
Ed. Daniell, Newport Pagnell.
Alf. Ebsworth, Bulwell.
H. W. Livett, Wells.
J. A. Pearson, Woolton.
R. T. Tasker, Melbourne.
J. Hillwell, Uxbridge.
H. Ancell.
W. J. Dale.
J. Liddle.
E. White.
C. F. Lord.
G. Ross.

Mr. Lord urged that it became the Government to consult the interest of all classes. That was the best constitution under which an injury done to the meanest member of society is felt to be so through the whole body. The wrongs of medical officers of unions were great, and they ought not to feel any false shame in expressing their sense of them. They had entered the profession to get an honest livelihood. What meant that expression which was familiar to them from childhood, "Learn to labour and to do your duty in that sphere in which it may please God to call you"? He had found guardians extremely unmanageable and most unreasonable. (Hear, hear.) Some gentlemen present seemed to wish for payment by the case; but if the expense incurred by doling out separate orders for individual paupers was to be 6s. 9d. each, those orders

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would be withheld. A gentleman who received £30 from a union applied to be paid per case; it was agreed to; there was an unusual quantity of illness the next year, but instead of £30 he only got £6 or £7. (Hear.) A heavy load lay at the door of the ratepayers, who elected guardians who did not discharge their duties. (Hear.) People asked, "Why have you continued this, then, so long?" Partly, he (Mr. Lord) owned, that he might get his bread in the state to which it had pleased God to call him; and partly because he had felt determined to go on steadily, and work out better things. He was told, "If you don't like it, give it up; we can ring the bell at Bartholomew's Hospital, and get plenty of men;" and there were medical men already in the vicinity whose condition was considered better in the world than his (Mr. Lord's) who would be ready to take it if he gave it up. (Hear.)

Mr. Boulger, of Bletchingley, in seconding the motion, said, he undertook the charge of the poor in a union, a few years ago, at £70 per annum, and found he had to expend £200 in the year; but he had the pleasure of receiving a vote of thanks from the guardians for losing £130 by them. (A laugh.) In the medical order the commissioners directed certain extra fees for surgical operations and midwifery, over and above the salary; but in most of the unions a reduction of salary was thereupon carried, and acceded to by the commissioners. (Hear, hear.) He (Mr. Boulger) was attending a district exceeding 16,000 acres, and including a workhouse, and he was expected to attend an institution containing one hundred and twenty persons at a salary of £10 a year; the two salaries ought to be kept distinct. There were no extra fees allowed for surgical cases in the workhouse. He was called near midnight to see a poor woman with strangulated hernia, within one hundred yards of the workhouse, and had her moved there to try the warm bath and other remedies; an operation, however, had to be performed, but he knew that by giving her that chance he lost his fee of £5, for that operation performed out of the workhouse. (Hear, hear.)

Some conversation now arose with respect to the practice in particular unions. It was stated that at West Ham extra fees were allowed for operations, even in the workhouse; and that at Leeds and Birmingham the guardians had treated the medical officers very liberally. It was also insisted that the salaries did not rest wholly with the guardians, for that by the Poor-law Amendment Act the commissioners were empowered to regulate the amount.

Mr. Livett, of Wells, moved

"That the best thanks of this meeting be given to John Burton, M.D., for the important services which he has afforded to this Convention, in consenting to take the chair on the present occasion; to the Council of the National Institute of Medicine, Surgery, and Midwifery, for their kindness and co-operation, and more especially for lending the use of their rooms; and also to the editors of the *Times*, the *Medical Times*, the *Lancet*, and "The Provincial Medical and Surgical Journal," and to other gentlemen connected with the public press, for their able exertions to obtain a reform of the present system."

Mr. T. Martin, of Reigate, seconded the resolution.

Mr. Johnstone, who introduced himself as the author of some observations on etiquette, in "The Medical Directory," said he had refrained from taking part in the proceedings, to avoid acting the part of a manplot. He felt satisfied that the plans of the committee would never secure the object of the body. The resolutions were too long; he could furnish some shorter and more effective; they should be sent to all the boards of guardians.

In consequence of interruptions, Mr. Johnstone's remarks were not concluded, and the resolution, being put, was carried by acclamation.

A great number of subscriptions to the fund of the Convention were announced at the close of the meeting, among which was the sum of £10 from R. R. Pennington, Esq.

THE DINNER.

About 100 gentlemen assembled after the meeting, to dinner, at the Crown Hotel; Mr. Martin in the chair. Several healths were proposed. Mr. Clifton proposed that of the chairman, which was handsomely responded to. Mr. Martin, in a eulogistic speech, proposed the health of Mr. Healey, the Honorary Secretary, which that gentlemen briefly acknowledged. The health of Mr. Cantrell and other gentlemen were subsequently named, and elicited from Mr. Cantrell, Mr. Ebsworth, Mr. Jackson, and the rest, very able addresses. Many useful facts and suggestions with reference to the meeting of Parliament were enunciated in the course of the several addresses.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Mr. Lawrence's Examination continued from page 28.)

EXAMINATION FOR MEMBERS, AND THE EXAMINATION FOR FELLOWS.—The examination for members is after this manner:—The Court of Examiners are ten in number, and they divide themselves into four tables; the president does not examine, because he regulates and superintends the affair; there are two members at each of three of the tables, and three members at the fourth; then each of the candidates is examined at each table; one person asks the questions, and the other, who is sitting by, minutes the subjects of the examination. Each table reports its opinion as to the results of the examination; and on collecting those opinions they express three degrees of merit, "good," "moderate," and "bad." The president collects the opinions when those examinations are concluded, and they determine on admitting the candidate or on giving him a further written examination, or on remitting him for his studies. All this is done in one night. The examination of the fellows occupies two days; it is by written examinations from ten in the morning till five in the evening of each day; written questions are given to each of the candidates, who is placed in an apartment where he has pens, ink, and paper; he has no books or other aids, and he has got to answer those questions; and then the answers to those questions are considered by the examiners. That is the mode of examination for fellows. I consider the examinations of members sufficiently stringent. We examine them in the way most calculated to enable us to judge of their qualifications.

The question of irregular practice or quackery is a very large question. Medical reform includes alterations which might be considered a remodelling of the profession; this bill, for example, if it registered all parties, and gave a common certificate to persons to practise in medicine, would be a remodelling; that is, it would throw the whole into one mass. I do not think the profession wants remodelling; I should object to any such course. An examination of the human subject is required for the fellowship of the college; with respect to the examination of members, there are bones and a skeleton at hand, which we make use of in the examinations, but not a dead body. It is conducted in the presence of the examiners; no other parties. The general rule is to examine twelve at one meeting of the Court of Examiners, and the arrangement I have mentioned is such that every examiner has an opportunity of judging of the answers given by each candidate. The examiners meet at six o'clock, and they are occupied till between ten and eleven; eleven commonly. The number of fellows is, under the new charter, unlimited. Any member of the college can offer himself for examination as a fellow on certain conditions, which are laid down. The practical limitation is the attainment by a person of a certain age, and the necessary qualification, if he seek to attain it: that is the only limitation that I know of. So far as I am acquainted with the matter, those about to come forward for examination, and who have concluded their education, are much more desirous than formerly to qualify themselves for the fellowship. I consider that the honour of the fellowship of the College of Surgeons is rising in public estimation. I think it desirable that the law should continue, with reference to the power of recovering fees, in our profession. The fees of apothecaries and the fees of surgeons are recoverable by law. The bill includes a great many particulars; the petition that was presented by the College of Surgeons embraces, I think, the principal points. I will not state that there are not others which might suggest themselves to me if I were to read it over, but that petition expresses generally our opinion on the whole of the bill. The council were unanimous in opposition to it. I believe nearly all were present. Minutes are kept of all the proceedings of the council. There is a minute of the proceedings on that occasion. The minutes do not express the numbers that vote in case of any difference of opinion. There was no hand held up against the resolution. The council consists of twenty-four, and I believe there is no vacancy in it at present, and I should think that there were not more than two absent. I should have no objection to a system of registration that should express the nature of the qualification which an individual possesses. The giving to all parties, physicians, surgeons, and apothecaries, and parties who practised before the passing of the Apothecaries' Act, a common certificate of their being persons "qualified to practise medicine," would deceive the public. I have examined the schedule with reference to the certificate. Here is a common certificate to all of their being qualified to practise medicine. The particular diploma or licence is stated in the commencement of the document, which ends with a common certificate to all, of qualification to practise medicine: that is the purport of the certificate which they are to receive. The certificate of qualification is one; namely, that the party is qualified to practise medicine. If the certificate had expressed that the party had been examined by the College of Surgeons of London, and that, therefore, he was a party qualified to practise surgery, I think there would have been no objection to it; or if he were qualified to practise medicine, or to practise according to the particular body who has licensed him. I consider that the document which the surgeon is to possess, should express what the nature of his qualification is. The College of Surgeons institute an examination in anatomy and surgery; and the certificate that they give is a certificate of a qualification to practise surgery. The College of Physicians do not examine on surgery, but on medicine, and they give a certificate of qualification to practise medicine. There has been no such thing hitherto as a general qualification for the profession. This certificate states that persons are "qualified to practise medicine," and there is an interpretation clause that medicine includes "physic, surgery, and surgical." In this way I think the certificate is calculated to deceive. The fact of a man having obtained the diploma of the College of Physicians is no proof that he is qualified to practise surgery; but the interpretation clause of the bill expressly provides that medicine includes surgery. The source of the inconsistency and deception is, that the document sets out with stating a special examination, and then deduces a general certificate of qualification. The particular diploma or licence can only prove a particular qualification. If all the medical bodies instituted the same examination, of course they would confer a common qualification; and then there would be no inconsistency in the certificate. I think that, when parties have received their qualifications from a body which is entitled by law to give those qualifications, you must leave it to the judgment of patients to select those to whom they choose to intrust their health. To draw the line

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between surgical and medical practice is often extremely difficult; parties who are patients cannot make the distinction, and even medical men are often at a loss. I do not consider that it would be possible by law to point out the distinction between the lines of practice. I object to the certificate because it does not express the true state of facts. The College of Surgeons has the duty of examining parties respecting their qualification to practise surgery; the College of Physicians inquires into the candidate's knowledge of medicine; and the Society of Apothecaries has been intrusted with the power to license apothecaries. The certificate, which is a legal document, should not go beyond the truth, namely, the legal fact of the person having been examined by a particular body, and thereby having been found competent to practise that branch of the profession. If it be the particular object of the certificate to legalize indiscriminate medical and surgical practice by all surgeons or all physicians, it appears well calculated to do so. Then there is another point: in the list containing the residences the particular qualification is not stated; for example, under the head of London, everybody would be put as a party qualified to practise medicine, and there would be no distinction between physicians and surgeons and general practitioners. I refer to the latter half of schedule (C); there is an alphabetical list for towns, and under the head of London, all parties, physicians, surgeons, apothecaries, and persons who were in practice before the Apothecaries' Act, appear in one list, as pesons qualified to practise medicine. Now, suppose a party was ill, and he wanted to look at the register (although I think people do not call in their medical practitioners from looking at registers), if a person from the country is taken ill in London, and he asks for this register, he looks, and he sees a name; he has a fever; some person comes to him, whose name he sees in the register, and asks him, "What is the matter with you?" He says, "I have a fever." The reply is, "You should not have sent for me; I should have been very glad to attend your wife, if she was going to be delivered; I am an accoucheur." He then sends for two or three others; he may send for a surgeon, who would attend him if he had a broken head, but who cannot attend him in fever, but who, under the certificate, is qualified to practise medicine; or he may send to a mere apothecary, who would say, "If you had a slight cold I could prescribe for you, but as you have a fever you must send for a physician." That would be the fate of a person looking at this register. He finds a number of people huddled together, who are all represented as persons qualified to practise medicine. I am now confining my remarks to the registration of the place of residence, coupled with the certificate. Then this person with a fever must ask the medical man to show him his certificate before he will find out whether he is a person duly qualified to take care of him. People do not like to take a great deal of trouble in matters of this kind. I do not think that a person who was ill would be likely to look beyond the name in the first list. As to Mr. Wakley's remark, "that that would not occupy a single moment," I do not think that it would be done, and therefore it does not signify if it would occupy no time.

Good Registration.—I see no objection to, and there are conveniences in, a good system of registration. The qualified practitioners are all registered. I think there is nothing easier than to discover that there is a regular list of persons licensed by the Colleges of Physicians and Surgeons. In our list there are a great many parties who have never sent in their residence, and many who are dead are on the list, but they are put separately on the list. As to Mr. Wakley's question, "Without any place of residence?" the dead people have no places of residence. We have taken every pains to get the residences of all the members of the college. We have put advertisements in the paper, and taken all other measures to get the residences, and the residences are put to the list as far as they are known, and the parties whose residences are not known are in a separate list. We have thousands of names without any residence attached to them, and the same inconvenience must attach to any registration. The members of the College of Surgeons are dispersed all over the British empire; you cannot tell whether they are dead, or where they are residing, in a vast number of instances; and you never can under any system of registration. All parties are entitled to be put upon the register by the present bill; and then I think there is clause 9, which repeals all restrictions and penalties, other than those contained in the bill, and clause 17, which renders the holders of the certificate eligible to every professional situation. I know of no statute law at present to render it unlawful for any person to hold the office of physician in a public institution who is only a member of our college: but the bill seems to me to confer a legal sanction on a thing which would be improper, and which, in fact, is absurd.

Professional Grades.—I do not see that it would be fit and proper that all medical men should undergo exactly the same examination; there are different departments of the profession, those of the physician, surgeon, and apothecary, or general practitioner; and the same qualifications are not required in all those departments. As to whether I am for rigidly maintaining the distinctions which now exist, I am not for anything rigid in the matter at all. The distinctions which now exist are not the offspring of law, but they are arrangements which have gradually arisen in the course of things, with a view to supply the wants of the community; they are found to answer their purpose, and they are in accordance with the habits of the public. I consider that a gentleman who is to practise as a general practitioner in the country should receive an efficient medical as well as surgical education; and as to "seeing any objection to his practising all branches of the profession," he must do so in the ordinary course of things in the country. I do not object to it, it is what is established, and answers the purpose very well. I consider that the operation of the bill is designed to melt down the profession into a single faculty. I rather think that the distinctions at present existing would subsist in spite of the bill; but that seems to be the object as far as the bill can do it, to reduce the profession to a single faculty. There is nothing in the bill to prevent our continuing the examinations for the fellowship as we do now, except the indirect discouragement from this common certificate. This certificate seems to be put in the place of the particular evidences derived from the present governing bodies of the particular examinations that the individual has undergone. By our internal arrangements in the college, we hold out inducements to men of high mental attainments to belong to our institution, and to acquire those honours which we consider our institution is calculated to confer; and I think that this common certificate, and the whole state of things under this common list, is calculated as far as legislative provisions can go to discourage us. Before our new charter we had one list of members of our college. The names of Sir Astley Cooper, Mr. Abernethy, and John Hunter, appeared as members upon that one list. My objection to the registration part of the bill is, that it is calculated to do away with the existing distinctions of the profession, physicians, surgeons, and general practitioners, and to confound them all in one common mass of persons, "qualified to practise medicine." I do not object to the existing arrangements of the profession, or the existing modes of practice. I do not think it possible to confine physicians strictly to medical cases, or surgeons to surgical cases, nor do I think that it would be any advantage that they should be so confined. I think it is desirable that they should be well educated, and that the public should have the choice of being attended by those in whom they have the greatest confidence. I think that the qualification should be according to the department of the profession that the parties belong to. I see no reason for interfering with the existing division of the profession into physicians, surgeons, and general practitioners; the public do not complain of that division, and the profession are not dissatisfied with it; and I see no reason whatever for the very important alteration which is indirectly attempted by this bill. If the present certificate denotes that a person has undergone an examination as a surgeon, and he is practising medicine, that is, treating medical cases, there is not impropriety of conduct; the public choose to be attended and to intrust their health to those in whom they place the greatest confidence, and if those parties have been well educated and examined, I see no objection to a party in a surgical case putting himself under the care of a physician if he chooses, or *vice versâ*. The general course of practice is in that particular branch to which the individual belongs, but the boundaries are indistinct, and you cannot define them by law. I object to giving one certificate to all members of the profession as being duly qualified to practise medicine; I do not object to a certificate that shall express what the qualification is, because it is expressed in the letters testimonial which the individual possesses, that he has been examined as a surgeon, and that he is qualified to practise surgery, or that he has been examined as a physician, and that he is qualified to practise medicine, or that he has been examined as a general practitioner. I conceive that the surgeon ought to be specially educated in the performance of surgical operations, the management of accidents, and a great deal of manual work; those are things which physicians never undertake. I do not think that there is any branch of medical science that the physician is educated in, in which the surgeon ought not to be informed. Those scientific principles which are the basis of the practical art as conducted by physicians are common to the physician and the surgeon; the extra education must be that of the surgeon in the manual part of the profession.

Relative Rank.—I think the public consider the physicians to be the highest department in medicine. I do not think the public are incapable of judging upon such a point as that; the public are not capable of judging of the amount of medical skill of individuals. But in point of rank the Herald's College would put physicians first. They study and obtain degrees in universities, and have always been justly respected as learned men. English physicians have generally been educated at Oxford or Cambridge with the nobility and gentry of the realm, and thus in public estimation they hold the highest social rank in the profession. I should be inclined to put physicians and surgeons on a par, but I am not at all unwilling to concede the priority to the physicians; they are more learned and receive a better education. I wish surgeons received as good an education as they do.

The New Charter, the Circumstances under which it was Conferred.—The new charter I think has worked very well. I remember a member of her Majesty's Government considered that it might be expedient to make some change in the profession, and I suppose that led to the new charter of the college, which, as I apprehend, was intended to form part of a more general measure relative to the medical profession. I do not suppose that the charter of the college would have been granted in reference to the college alone; I should think it was part of a general scheme. The council did not take the initiative in this matter. The preamble of the charter states that we presented a memorial to the Crown, praying that it might be granted, and I dare say we did; but that was not the first step. That memorial might be apparently the first, when you came to see the public representation of the affair, but that was not the very commencement of the business. If a charter is to be granted, you must present a certain petition asking for it. I think the first proceeding in the business was, that the Secretary of State for the

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Home Department was kind enough to send to the college a sort of sketch of an intended bill for the reform of the medical profession, in which this change in the constitution of the college was included. I do not think the heads of the charter were furnished to the council; I think that some of the heads of the general measure were furnished. The first proceeding was to do what the Secretary of State intimated to the council; viz., to see those heads and to form an opinion respecting them. I think the Secretary of State had more to do with the charter than the council as to the general plan of the charter, but it was ultimately determined upon after a great deal of consideration and many conferences. I will not pretend to distinguish accurately between the amount which was contributed by the Secretary of State and the modifications or alterations which might have arisen from conferences with, or consideration by, the council. I dare say suggestions were made by the council, but this was a considerable time ago, and it was a complicated business; there have been a good many meetings of the council on many other matters, and I cannot therefore pretend to say exactly. Persons are ineligible to be admitted on the council who are practitioners in midwifery; and that proposal, I think it is very likely, originated with the council. I recollect that it was discussed, because there was a difference of opinion upon it. I do not think that suggestion was contained in the original sketch which we received from the Secretary of State; but I cannot speak positively upon that, and I would not wish to speak to it without being sure that I was correct. The charter required the council within three months to nominate a certain number, not fewer than 250 and not more than 300; and then the charter further empowered the college to nominate other members within a year, apparently under the consideration that there might be omissions and something wanting to be rectified, and under that power 300 more were nominated before the end of the year. The words of the charter are,—"The council of the said college with all convenient speed after the date of these our letters patent, and before the expiration of three calendar months from the date hereof, and in such manner as the said council shall deem best, shall elect to be fellows of the said college any such number of persons, being members of the said college, and not being in the whole less than 250 nor more than 300, as the said council shall think proper. It shall also be lawful for the council of the said college, at any time or times after the expiration of the said three calendar months, and before the expiration of one year from the date hereof, by diploma or diplomas under the seal of the said college, and in such form as the said council shall think fit, and without any fee, to appoint any other person or persons, being a member or members of the said college, to be a fellow or fellows of the said Royal College of Surgeons of England." Several have come in for examination since those were nominated; the latter were the older members of the profession, and many of them have died.

Rule of Selection.—I would say in the first place that the council determined not to make the nomination an individual question in any case, but to take them by classes. In the first place they took the surgeons of all the hospitals in England and Wales, which are recognised by the council as schools of surgery; all recognised teachers of anatomy and surgery; then persons having considerable reputation as surgeons, and called in to consultation in surgical cases by the practitioners in their neighbourhood, although they had no connection with hospitals. Then next they took a certain number of medical officers in the military and naval service of the country, recommended by the heads of the respective departments; the council had not a knowledge of the qualifications of those gentlemen, and therefore referred upon that subject to the director-general of the army, and to the physician-general of the navy. Next they took gentlemen practising as surgeons in London, who, though not connected with hospitals, were considered eligible to the council under the former charter, and according to former usages; those were parties who generally had practised surgery simply under that denomination, and parties who had a kind of right recognised by usage to come on in their turn for nomination to the council; some of those were put upon the list of fellows. Next they took persons distinguished for the cultivation of the kindred sciences of anatomy, physiology, and natural history, such as Professor Owen, Mr. Mantell, a gentleman of the name of Newport, a general practitioner, who had gained the medal of the Royal Society, and some other members who had distinguished themselves in the cultivation of science. Lastly, other names were inserted for special reasons, being principally those of teachers who had been recognised by former acts of the council; for instance, persons who had been teachers of anatomy and surgery, or persons holding important public offices; among the latter were four senators of the London University. I think the surgeons of dispensaries in London were admitted. The surgeons of those infirmaries recognised by the college were all placed on the first list. Subsequently the college put upon the second list the surgeons of hospitals in the country, which were not recognised by the college, and also surgeons of dispensaries. There may be particular rules in each case on the appointments of surgeons to infirmaries and hospitals in the country. I do not know of any general rules that are applicable. They are in general elected by the subscribers, in the same way as in London by the governors. The public having appointed those persons to these institutions, the council approved of the proposition of making them fellows of the college. We institute no inquiry in such cases to ascertain whether the public had made a good choice. Such an inquiry would have been impracticable; they were appointed on the ground of their holding important public situations The case of a subscriber to an hospital voting for a surgeon is totally different from that of a patient sending for a medical man. Although unable to estimate professional skill, the public can judge well enough of professional character. In the case of public professional appointments they usually select the persons best qualified. I am not acquainted with any instance of their being obtained by improper means. I cannot deny the possibility of such a thing; the question is a very general one. I cannot state any particular instances. I can state generally my belief that the best qualified men get those situations; it has been so as a general result. I am sure of it, because I know the individuals. The college having to confer an honorary title and an important privilege, adopted no course of inquiry to ascertain what was the competency of the individual in each particular case, otherwise than the approval which had been bestowed upon him as regards his professional reputation by the public who were living in his immediate vicinage. We considered that the best criterion. I think the public will generally select the persons best qualified. I do not think that mankind are capable of judging of the skilfulness or unskilfulness of a medical man: if a person is ill and sends for a physician or surgeon, if he has administered to him a quantity of medicine, he does not know whether that is or is not the proper treatment; but a gentleman living in the country, and subscribing to an infirmary, is pretty well acquainted with the general reputation for skill of the medical men who live around him. As to the question, "If you can rely upon the judgment of the public to the extent you have described, what danger do you fear can arise to the character of the profession from the adoption of the certificate as it is found in the schedule of the bill before the House?" I have said that I think that the good sense of the public would neutralize the effect of your Registration Bill. (Mr. Wakley here sat down.) The practice of a surgeon in a public hospital, in the face of his professional brethren, affords the strongest test of professional competency which the profession has. The selection of fellows under the new charter, while it was allowed to be nominative, was made once for all, and under the charter it could not be repeated after the expiration of twelve months; it was at an end then. It was necessary to form a constituent body under the charter, and there would not have been a constituency unless parties had been so nominated. The fellowship is now confined to those who have undergone a more extensive education, have a higher degree of qualification, and have attained a greater age. Whatever defect may have existed in the nomination granted for a year has now ceased entirely. Henceforth for ever, under the charter, admission must be obtained by test of merit. The nomination was only a temporary contrivance to produce a constituency at the moment, which could not have been created in the regular course of examination for a long time. The evils and imperfections of the thing, if impartially looked into, will be found to have been exceedingly few. I am rather surprised that they were not more, considering the nature and difficulty of the affair. I think the efficiency of the college and its utility as a public institution have been much increased in the last twenty years.

(To be continued.)

LETTER ADDRESSED TO WM. LAWRENCE, ESQ., F.R.S., PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS, LONDON.

Sir,—I have just read in the *Medical Times* for the 16th inst. an account, which I presume to be correct, of part of your evidence taken before a select committee of the House of Commons on medical legislation. You there make several statements most disparaging to the medical graduates of the University of St. Andrew's, and among other things you assert that "there would not be any evidence to my mind to prove such a person (viz., a graduate of St. Andrew's) would be a fit candidate for the office of surgeon or of general practitioner in the smallest poor-law unions in England." Now, Sir, permit me to ask if you have taken the smallest trouble to ascertain what are the qualifications required of the candidates for the degree of M.D. in the University of St. Andrew's, the nature of the examinations, and the number of rejections? That you have not done so, I do you the justice to believe, for I am infinitely more disposed to infer that an individual of your reputation and character may fall into the error of making reckless and rash assertions, than be guilty of a deliberate attempt to blast the prospects and debase the professional character of a considerable number of respectable and deserving practitioners in medicine, a large proportion of whom, as shall appear in the sequel, are members of the college in which you hold so prominent a place. I am convinced, Sir, that I can prove to your entire satisfaction that your statements on this subject are at total variance with facts; and I think that, after informing yourself better, you will deeply regret that you ever gave utterance to such remarks without previously inquiring how far they were founded on truth.

It is quite true that the University of St. Andrew's possesses no complete school of medicine, or any hospital, and the only branches of a strictly medical education taught there are anatomy and chemistry; but all that portion of a good medical education which she cannot herself give she by no means dispenses with, for no one can become a candidate for the degree of M.D. (the only degree in medicine conferred at St. Andrew's) without having satisfactorily proved that he has received a regular medical education in respectable medical schools for at least four complete winter sessions, or three winter and three summer sessions, and attendance at a public hospital, containing not less than eighty beds, for at least eighteen months, where clinical lectures are delivered. In proof of this I need

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only refer to the various medical almanacs, and to the printed regulations of the university for granting degrees in medicine.

The university has appointed a board of competent examiners, similar to the boards appointed by the royal colleges of surgery and medicine, in the three kingdoms, for testing the qualifications of candidates; and *no* degree is granted without a regular and stringent examination. These regulations have been in force since 1826.

That the board of examiners does its duty to the public and to the university, the following short statistical statement, part of which was published nearly two years ago and widely circulated, will abundantly prove. In the year 1840 thirty candidates presented themselves for examination; and of these twenty-four passed, and six, or one out of every five, were rejected. Of the six rejected *four were members of the Royal College of Surgeons of London*; one was a licentiate of the Royal College of Surgeons of Edinburgh; and one possessed no diploma, but had all the preliminary qualifications prescribed by the university in their printed regulations.

The university has already made it publicly known, in a series of resolutions unanimously adopted by the senatus, at a meeting held on the 11th Jan., 1845, and extensively advertised, that, "at the three last examinations, seventy-one candidates were examined; and of these twelve, or more than one out of every six, were rejected. Of these seventy-one candidates there were thirteen who presented no diploma from any of the licensing boards of the three kingdoms, but who had all the preliminary qualifications required by the university in their published regulations, and six of these, or nearly one half, were rejected. The other six rejected candidates were all members of the Royal College of Surgeons of London, some of them also held the diploma of the London Apothecaries' Company;" and one of them, it might have been mentioned, was remitted to his studies for the second time. Of the whole seventy-one candidates, forty-were members of the Royal College of Surgeons of London, so that rather more than one out of every seven of the members of the college of which you are president, who presented themselves as candidates for the medical degree of the University of St. Andrew's, were deemed unworthy of the honour that you hold so cheap. The statistics of graduation since 1845 would furnish results similar to those previous to that period; but I shall content myself by giving those of the present year. Before doing this, I may mention that, in the August examination of 1846, five licentiates of the Royal College of Surgeons of Edinburgh presented themselves for examination, and three out of the five were remitted to their studies. These three gentlemen had received their diplomas from the Edinburgh College very shortly before their rejection at St. Andrew's; and one of him was remitted to his studies for the second time, he having presented himself for examination here previous to his successful attempt in Edinburgh. During the present year forty-nine candidates presented themselves for examination. Of these,

36 were members of the Royal College of Surgeons of London.
2 ,, licentiates of the Royal College of Surgeons of Edinburgh.
1 was a licentiate of the College of Surgeons of Dublin.
1 ,, ,, of the Apothecaries' Company of Ireland.
1 ,, ,, of the Apothecaries' Company of London.
1 ,, ,, of the Faculty of Physicians and Surgeons of Glasgow.
1 was a native of Germany, who had studied medicine for four years in Halle, where he had graduated.
6 had no diploma, but had the qualifications prescribed by the university in their printed regulations.

49

Of the thirty-six candidates who were members of the Royal College of Surgeons of London, seven, or nearly one in every five, were rejected; and one of the rejected was a surgeon, and another an assistant-surgeon, in the navy. More than one half of the candidates belonging to the London College were also licentiates of the London Apothecaries' Company. One of the two licentiates of the Edinburgh Royal College, who also possessed the diploma of the London Apothecaries' Company, two of the six who held no diploma, and the licentiate of the Dublin Apothecaries' Company, were also rejected. Out of the whole forty-nine candidates, eleven, or rather more than one out of every five, were remitted to their studies.

If, then, according to your recorded testimony, graduates of the University of St. Andrew's "are unfit to practise their profession anywhere," what must be *your* opinion of the professional qualifications of the members of the college over which you preside, seeing that one out of every five or six of them is rejected when they become candidates for the diploma of the University of St. Andrew's? The bitterest enemy of the Royal College of Surgeons would not have ventured to slander its members in the manner you have thoughtlessly done in your endeavours to injure the reputation of the University of St. Andrew's.

I could readily adduce, in evidence of the respectability and professional standing of the members of the board of examiners for this university, the names of gentlemen now occupying medical chairs in the other three Scottish universities, and of one holding a high place in one of the universities of London, who acted as examiners before they received their present appointments; and it would be equally easy to mention the names of professors in established universities, and others occupying the foremost ranks as physicians and surgeons, who hold the diploma of this university, had I not said more than enough to satisfy you that you have most unjustly, and I have no doubt unwittingly, aspersed the professional attainments of the graduates of St. Andrew's, and that they are entitled to reparation at your hands.

I have the honour to be, Sir,
Your most obedient servant,
JOHN REED, M.D.,
Fellow of the Royal College of Physicians in Edinburgh, and Professor of Anatomy in the University of St. Andrew's.
St. Andrew's, Oct. 23.

THE PRESENT DEGRADED STATE OF THE MEDICAL PROFESSION.

[To the Editor of the Medical Times.]

SIR,—Knowing the readiness with which upon all occasions you use your powerful influence in advancing the dignity and respectability of our unfortunate profession, I beg leave to call your attention to the following advertisement which appeared in the *Times* newspaper of yesterday, Oct. 20:—

"MEDICAL.—A gentleman, twenty-eight years of age, M.R.C.S. and L.A.C., wishes for a permanent situation as *out-door* visiting or dispensing assistant to a respectable practitioner within a mile and a half of the Strand. Salary £50 per annum. No one connected with the retail need apply. Apply by letter, prepaid, to M——, 18, —— street, S——."

This is indeed a sad example of the degraded condition of the present race of medical practitioners, when a gentleman possessed of the double qualification, and twenty-eight years of age, can so far lower himself as to offer his services for the miserable pittance of £50 per annum—less than £1 per week. Why, a journeyman carpenter can with ease earn his 5s. a day, or 30s. per week; a police constable 18s. to £1; and the wages of a gentleman's footman are £40 per annum, with board, lodging, and sometimes a suit or two of livery; but here is an educated man toiling, both mentally and physically, and that at all hours, for less remuneration than is accorded to a servant or journeyman mechanic. It is much to be regretted that any member of the medical body could send forth such an advertisement—not that it matters much at what price an individual may estimate *his* services, but because it tends greatly to lower the respectability of the profession generally in the public eye. Trusting you will think these remarks worthy of insertion in your widely-circulated journal,

I have the honour to be, SIR,
Your most obedient humble servant,
A GENERAL PRACTITIONER.

Oct. 21.

ANDOVER UNION.

At a meeting of the medical officers of the Andover Union, held at Andover on the 26th day of October, 1846, the following resolution was unanimously adopted:—

That this meeting, representing the opinions of the medical officers of the Andover Union, deprecates the present inadequate salaries of medical officers sanctioned by the poor-law commissioners. And that this meeting pledges itself to support the Convention of Poor-law Surgeons about to assemble in London, for the purpose of securing more adequate and just remuneration to the union medical officers throughout this country."

George S. Payne.
Octavius Edmund.
Henry Ryder.
John Smith.
John V. Medhurst.
Frederick Eldridge.

A SEVERE SURGERY CASE.

At the Morley petty sessions the magistrates were occupied in a long investigation on certain differences between Mr. David Phillips, surgeon, of Newhouse, near Totnes, and Mr. Thomas Daykin, surgeon, of the same place. Mr. Bryett, of Totnes, solicitor, appeared for the complainant; and Mr. Lavers, solicitor, of Plymouth, for the defendant. It appeared, from the statement of the complainant's solicitor and from the evidence, that the complainant and defendant had been at variance for some time past, and that the complainant had made different representations to the poor-law commissioners to prevent the defendant from acting as a surgeon in various parishes in the Totnes Union, all which representations had failed to produce the effect he desired. On the 9th of September defendant was at Buckfastleigh fair in company with Mr. Cornish, another surgeon. Mr. Cornish was finding fault with the defendant in some professional matters, when complainant entered the room of the White Hart Inn, where defendant and Mr. Cornish were in conversation. Defendant joined in the conversation, and told complainant he had acted very scandalously towards him, and expressed to Mr. Cornish his surprise that he should be talking to a person who was insane. It appeared that defendant left the room, and the complainant took the chair in which Mr. Daykin had been sitting. On defendant's return he requested complainant to move, which he declined to do; defendant then told complainant if he did not move, he would make him. Upon this the complainant left the room, saying on the way "You are a blackguard; I did not expect to come into such blackguard company." Upon that Mr. Cornish said to Mr. Daykin, "You are not going to stand that;" and the defendant then followed the complainant into the kitchen, and there pulled his nose, saying "That is the way I treat such fellows as you." Many witnesses were examined for the complainant and defendant, and Mr. Lavers addressed the bench, stating that it was quite admitted by the defendant that he had assaulted Mr. Phillips, and that he had been obliged to resort to these measures in order to teach him that he (complainant) would not be permitted to attack his character in any way he thought proper.

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Mr. Lavers commented at considerable length on the system of annoyance which the complainant had attempted towards the defendant, and the result of which had not been as complainant desired; but the only satisfaction that complainant could ever get from defendant was the expression of his readiness at all times to make an apology if he was in the wrong. Mr. Lavers assured the magistrates that the course the complainant had adopted would only give complainant a right of action against him in case he could prove special damage, and that such a remedy would be in this case utterly useless. As regards defendant he had naturally to regret ever having made acquaintance with the complainant, for the complainant had used every opportunity to injure and annoy him behind his back. Mr. Lavers called on the magistrates to dismiss the application; but should this decision be against his client he was satisfied the penalty they would impose would be such a one as, considering the nature of the aggravation, they thought the case merited, and not such as the complainant's attorney sought.

The magistrates consulted together for a short time, and said, they greatly regretted that a misunderstanding should arise between professional men on whom the public relied for their services in time of need, and, under all the circumstances of the case, they thought that if they fined the defendant in the penalty of 10s. and costs that would be sufficient. They declined, however, to require defendant to find sureties. The fine was immediately paid. The case lasted upwards of three hours.

THE EMIGRANT FEVER IN CANADA.

The Health of the City of Toronto.—We cannot say a great deal on this subject. Both town and country still remain sickly, but the prevalent disease is putting on a more modified type. Intermittents and remittents are also more common than typhus; and quotidian ague, not much known in this vicinity hitherto, is now seen very frequently. Opinions gain strength that most of the cases of fever in and about Kingston this summer have been occasioned, not so much by the importation of the ship fever, as by the miasma or malaria generated by the untoward lowering of the waters of the Rideau Canal, thereby exposing to the action of the heated atmosphere the mud bottoms of many thousand acres of drowned land.—*British Whig.*

(From the *Toronto Patriot.*)

We learn, from an intelligent friend, who has just come down from the vicinity of the Grand River, that, though sickness has prevailed to a great extent in that neighbourhood, very little has been traceable to the emigrants. The cases of fever have almost all been of the remittent or intermittent character. Dysentery has been also very prevalent and severe, but our informant states positively that in no respect but severity have the prevalent diseases varied from the ordinary epidemics connected with the season of the year.

Emigrant Hospital, Point St. Charles.

Number of sick on the 10th of September, 1847:—

Men	437
Women	366
Children	203
Total	1006

Died during the last twenty-four hours:—

Men	4
Woman	1
Children	8
Total	13

(From the *Quebec Mercury.*)

Notwithstanding the many remonstrances of the Canadian press, and in the face of the awful details of misery, sickness, and death hitherto attendant upon the emigration of this year, we find renewed instances (of the most melancholy description) of the recklessness with which the lower classes in Ireland, England, and Scotland are sent off to find an early grave in Canada, or to drag out a miserable existence here for a briefly-protracted period.

The last case in point is the ship Superior, from Londonderry, now at Grosse Isle. This vessel left with 366 passengers. Her deaths on the passage amount to 20, and 120 sick (of typhus fever and dysentery) have been landed at the quarantine station. Of the number (not positively ill) sent to the sheds for the reception of the healthy, the inspecting medical officer is of opinion that no more than twelve can be said to be free from the disease. The whole of these poor creatures are said to exceed in squalor, wretchedness, filth, and misery, any that have arrived from the old country during this season of misery and death. One fact will suffice to illustrate the wretched condition of these poor creatures, and to convey a fearful idea of the miserable position in which they are about to find themselves. It is given in a few words:—So destitute were they, the captain had to cut up the canvas bread-bags to furnish clothing for some of them! Is not this truly appalling? What hearts must those possess who could deliberately expose their fellow-creatures to misery such as we now detail? Man cries shame upon his fellow-man for such cool, calculating, and mercenary atrocity.

A second vessel, freighted with Highlanders, equally as miserable and filthy in condition as any hitherto reported, is also at Grosse Isle at this moment—the Eliza Jones, from Glasgow, with 369 passengers. She has landed 30 sick at the station, and lost 30 during the voyage.

(From the *Quebec Chronicle*, Sept. 16.)

Our advices from Grosse Isle are up to yesterday. All the tents were struck some days since. On Tuesday last the churches were emptied of their sick, have been thoroughly cleansed and fumigated, and now revert to their original purposes. On Wednesday the old passengers' sheds were vacated (they had been converted into hospitals about the end of May), and the number of sick reduced to 1327; of whom 150 were convalescents, who have been sent to the east end of the Island, where there have been established male and female convalescent wards. All the sick are now in hospital. The medical and hospital staffs have been reduced. The services of Drs. M'Grath, Sauvé, and Jameson have been dispensed with, and Dr. Wallace will leave the ensuing week. The reduction has likewise extended to the orderlies and nurses. The hospital state on the 10th was as follows:—

Men	483
Women	472
Children	352
	1307

Between the 5th and the 9th inst., the deaths were 104.

GOSSIP OF THE WEEK.

Naval Promotions and Appointments.—Surgeons: R. M'Cormick, to the Fisgard; T. W. Jewell, to the Victory; Benj. Bunce, to the Ocean.—Assistant-Surgeons: Alexander Browning, and Evan Evans (1842), to the rank of Surgeon—the latter promoted and appointed to the Bellerophon, for his services in the Gorgon steamer, while in the Parana River; Dr. R. Fulton, to Cockatrice; W. G. M'Clare, to Poictiers; William Ellis Hambly, to Caledonia.

Apothecaries' Hall.—Gentlemen admitted members on Oct. 14: Theodore Romney Willan, Humphry Sandwith, Henry William Hayward Richardson, William Beedzler Deacon, and William Parker Shipton.—Oct. 21: Frederick Farr, Charles Gage Brown, Joseph Holmes Buxton, John Fisher, Henry Harris Muggeridge, John Newton, and William Bannister.

Society for Relief of Widows and Orphans of Medical Men in London and its Vicinity.—A half-yearly general court of the members of this society was held at the Gray's-inn Coffee-house, Holborn, on Wednesday evening, the 20th inst., Sir Charles Mansfield Clarke, Bart., the president, in the chair. It appeared from the minutes which were read, that between November and May last twenty-two widows had received half-yearly grants at the rate of £36 per annum, nine widows at the rate of £30 per annum, three orphans at £25, and one at £20; that eight children had received smaller grants, and one widow a grant of £10 for immediate relief. Two new applications for relief had been received and awarded to, and the court of directors had appointed a committee to consider whether the sums granted to widows and orphans might with safety be increased. A bequest of £100, by the late Dr. Kerrison, had been received duty free. A ballot then took place for the election of officers and directors for the ensuing year. Dr. Turner, late treasurer, was elected a vice-president in place of Dr. Mann Burrows, deceased. Thomas A. Stone, Esq., was elected treasurer in place of Dr. Turner; and, in place of the six senior directors who retire in rotation, the following gentlemen were elected directors, viz., Drs. George Burrows and Ferguson; Messrs. Wormald, Lucas, Law, and H. Sturry.

The late Sir Astley Cooper.—The following inscription has recently been engraved on the pedestal of the monument by Baily, erected to the memory of Sir A. Cooper, in St. Paul's Cathedral, by the subscriptions of the friends and pupils of the late baronet:

Sir Astley Paston Cooper, Bart.,
K.C.H., F.R.S., D.C.L.,
Member of the National Institute of France,
Sergeant Surgeon to their late Majesties
George IV., William IV.,
To her present Majesty Queen Victoria,
And for a period of forty-two years
Surgeon to Guy's Hospital,
Born 1768. Died 1841.

Animated by a fervent attachment
To the science and practice of his profession,
It was the study of his life to augment and exemplify
The resources of Surgery,
And by a most assiduous, benevolent, and successful
Application of his time and talents
To this noble department of the Healing art,
Not His country alone, but the world
Became indebted to his exertions
And familiar with his fame.

As a memorial of his excellence and their admiration,
His contemporaries and pupils
Have erected this monument to perpetuate
His name and his example.

Basford Board of Guardians, Oct. 5.—Present: H. Sleight, Esq. (chairman), and Messrs. Bailey, Pyatt, Burrows, Elliott, Barrow, Morrison, Faulconbridge (Bulwell), Widdowson, Mellows, Bennett, and Nuttall. Paupers in the house, 312, being an increase of eight over the preceding week; out-relief to 2842 persons, £198. 11s. 2½d. A report from a committee appointed with reference to the salaries of three of the medical officers was read, and ordered to be considered next Tuesday.—Oct. 12. Present: Henry Sleight, Esq. (chairman), and Messrs. Birkin, Bailey, Nuttall, Faulconbridge (Bulwell), Hemsley (Gotham), Ward, Hewitt, Barrow, Hobson, Bennett, Poole, Teplis, Martin, and Widdowson. In the house, 303; admitted during the week, 14; discharged, 21; dead, 2. Out-relief to 2908 persons, £200. 4s. 6½d. The report above referred to was received and adopted, and the recommendation contained in it of increasing the salaries of two of the medical officers to the amount together of £23 per annum, will be reported to the poor-law commissioners for their sanction. The following resolutions were unanimously adopted:—Resolved—"That this board having taken into consideration a series of resolutions passed at a meeting of

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the medical officers of this union, at the Flying Hotel, Nottingham, on the 2nd instant; as likewise a communication from Mr. Ebsworth, received this morning, on the same subject; and finding, on reference to the union accounts, that the payments for medical officers for attendance on poor persons have been steadily on the advance for several years past, and have now reached so large an amount as £700 per annum—being an advance of about 70 per cent. on the same description of charges from the year 1842—decline, in the present depressed state of affairs throughout a large portion of this union, and the consequent inability of the ratepayers to meet the demands made upon them, to make any further advance upon the salaries of their medical officers, except in the special cases referred to in a subsequent resolution; *but they are quite prepared to relieve the medical officers from engagements for which they represent themselves to be inadequately remunerated, by accepting their resignations at the termination of the current quarter.*—Resolved—That it appearing further to this board that *two* of the medical officers connected with the passing of the resolution above referred to, received, during the year terminating the 29th of September last, £150 for attendance on poor persons, exclusive of the whole cost of maintenance of horses and charge for drugs (as per account rendered by themselves), the board therefore consider they have in this fact an additional reason for refusing any further advance of salary to such officers.—Resolved—That the board having taken into consideration a previous application for advance of salary, by Messrs. Burrows and Orton, have agreed to add to the salary of Mr. Burrows the *sum of* £15 *per annum*, and to that of Mr. Orton the *sum of* £8 *per annum*, to commence from the termination of the last quarter."

Medical Relief.—A married woman of the name of Dament died recently, after a short and sharp illness, at Waldringfield, in the Woodbridge Union. She was visited by no medical man, though the husband, having an order for his attendance, waited upon the district surgeon, stated the urgent symptoms of his dying wife, and begged the medical gentleman in question (Mr. Moore) to visit her. With that request Mr. Moore did not comply. The woman died at eleven o'clock the same night. The board of guardians meet, and the Waldringfield guardian brings the case before them. He produces the husband of the deceased and the nurse who attended her, and complains of gross neglect on the part of the medical officer. The board deliberates, divides, and, after much discussion, adopts this as its final decision:—"That Mr. Moore be reprimanded." The following embrace the main facts of the husband's (Dament) statement. Though couched in simple phrase, there are points in his narrative which suggest matter for reflection:—James Dament, the husband of the deceased, said: On Friday, the 1st of October last, I left my wife at home in good health. At half-past six o'clock, when I came home, I found her lying on the bed, but not undressed, extremely ill and suffering great pain. She said to me, "I am very ill;" I said, "I see you are." She continued ill. I sat up with her all night. She had violent pain, sickness, and bowel complaint. At three o'clock in the morning the symptoms abated—both sickness and purging—and she seemed rather better. From three o'clock till six this improvement lasted. At six she asked me to go and call Nurse Button to come to her, to make her a cup of tea. I went to Nurse Button. She was not stirring. I called at the window and told her that my wife was very ill. She said, "She would come;" and, to the best of my knowledge and belief, Nurse Button went to her about six o'clock. I went to my work. At half-past two o'clock in the afternoon Nurse Button came to me while I was at my work in the fields; told me that my wife was very bad; that she saw a great change in her for the worse between one and two o'clock. I came home directly. I saw my wife, and was sure she was a great deal worse. I went directly to the overseer for an order for the doctor (Mr. Moore). Mr. Salters, the overseer, was not at home. I stated to Mrs. Salters how bad my wife was, and the danger she was in, and Mrs. Salters gave me an order to Mr. Moore for his attendance. I came on to Woolbridge to Mr. Moore as quick as I could. I got to Mr. Moore's house about half-past four. I saw Mr. Moore a few minutes after I came. I gave Mr. Moore the order, and I told him my wife was very dangerously ill. He asked me when my wife was taken ill? I told him, "on Friday afternoon." "Why," said he, "did you not come to me in the morning?" I said that, though she was very ill over night, she seemed a trifle better towards the morning, and that I did not wish to trouble him without great occasion. Mr. Moore said "he had been close by; he had not been home more than ten minutes; his horse had been out, and that he would not go to my wife; if he did he might always be riding about!" He asked the particulars of her complaint, and I told him as clearly as I could what they were. He then said he knew what to do for her as well as if he had seen her. He asked me if she had much fever? I said yes, and that she was very thirsty. Mr. Moore ordered me some medicine to take home with me. Mr. Moore's young man told me the effect was to make my wife sick, and when it operated to give the sick woman plenty of warm water. I had also some fever powders given me. My wife was to take one of them every two or three hours in a little cold water. I got home about half-past six, and gave the medicine to Nurse Button. Nurse Button said my wife was so low and weak she dared not give her the emetic. A fever powder was given her about about two hours after I got home. About eleven o'clock the same night she died. The next morning—Sunday morning—at a quarter past seven o'clock, I went to Mr. Moore to tell him that my wife was dead. I saw his stable-man, and told him to tell his master that my wife was dead, so that he need not trouble himself to come over to Waldringfield, for she was gone. I went on to Melton; and between eight and nine o'clock, as I came back, I saw Mr. Moore. I told him my wife was gone. He seemed struck and said, "If he'd a known she a been so bad he would have come last night."

Poisoning by a Somnambulist.—The subject of animal magnetism is about to come before a criminal court of law in Belgium, in reference to a charge of manslaughter against a mesmeric practitioner, Mlle. W—, who professed to discover by mesmerism inward diseases and their remedies. This woman prescribed, while in a mesmeric trance, a certain medicinal compound for one of her patients at Antwerp. The prescription was made up, and taken according to order, and the patient died very shortly afterwards, obviously from the effects of some very active poison. The woman is to be tried for the crime. It appears to be rather against *clairvoyance* that, while the mesmerist professed to have power of detecting inward disease, she was unable to foresee that her medicine would infallibly destroy the life of her patient!

The Cholera.—Malta, Oct. 7.—The Board of Health have come to a determination that vessels arriving from ports where the cholera exists, having actually on board cases of sickness or death, or having had either the one or the other within twelve days previous to arrival at Malta, will not be permitted to enter even the quarantine harbour, but must remain cruising in and off the harbour for such a number of days as the Board of Health may decide. Upon the report of the quarantine physicians, who will go alongside such vessels, and obtain the necessary information as to the nature of the disease, the Board of Health will then fix the number of days before such vessels can be allowed to enter the quarantine harbour, and they will be subject then to perform such period of quarantine as the board may, under the circumstances of the case, think proper to impose.

The Cholera in Russia.—Letters from St. Petersburgh of the 5th state that, on the authority of the official reports received by the Government, the cholera continued to advance towards the north and east. Cases of it had occurred at Orel, at Toula, and even in the village of Pensa, situated at only fifty leagues from Moscow. In the province of Astrakan, in which there were 31,300 inhabitants, 5915 cases had occurred, and 3131 deaths. The disease still rages with great severity at Tscharno-Jarsk, and in the environs. At Saratoff, the capital of the province of that name, 2500 persons had been attacked, 1991 of whom died. In the country of the Cossacks of the Don there had been 12,651 cases, of which 7017 terminated fatally. At Charcow 53 persons had been carried off, and on Sept. 15 there were 588 sick at Kursk. At Woronesch, a town with a population of 44,000, the cholera broke out on the 4th of September, with 420 new cases, and 150 deaths had occurred daily. On the 16th there were 1019 persons ill of the cholera in the hospital, 418 of whom were attacked the same day. The number of deaths on that day was 152.

Cholera.—Some years ago, when Asiatic cholera was in the south of France, a physician of Marseilles, having noticed that charcoal-men were exempt from the disease, determined to try charcoal as a remedy for it, and was eminently successful in his practice. As no effectual remedy for the disease appears to have been hitherto discovered, and as charcoal would at any rate be harmless, it might be well worth a trial, both in Asiatic and other cholera. Its action is understood to be antiseptic: by correcting the putrid condition of the bowels the disease is said to be checked.

A number of young medical men have left Berlin for the Russian provinces, to study the progress of the malady.

The *Augsburg Gazette* contradicts the report of the cholera having appeared in Moravia and Silesia.

The Scientific Congress at Tours, of which the session is just terminated, have assembled nearly a thousand learned men of all nations. Those parts of the programme relating to the medical science have been the subject of numerous communications and spirited discussions.

MORTALITY TABLE.

For the Week ending Saturday, Oct. 23, 1847.

Causes of Death.	Total.	Average of 5 Summers.
All Causes.....	967	1040
Specified Causes...	965	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases	296	211
Sporadic Diseases.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	95	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	132	157
Diseases of the Lungs, and of the other Organs of Respiration	233	333
Diseases of the Heart and Blood-vessels.....	34	34
Diseases of the Stomach, Liver, and other organs of Digestion	87	74
Diseases of the Kidneys, &c.	10	9
Childbirth, Diseases of the Uterus, &c.	13	14
Rheumatism, Diseases of the Bones, Joints, &c. ...	5	7
Diseases of the Skin, Cellular Tissue, &c.	3	2
Old Age	38	65
Violence, Privation, Cold, and Intemperance.....	19	29

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No. 423. **SUMMARY.** Nov. 6.

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ORIGINAL CONTRIBUTIONS.

ON THE CAUSES OF DEATH AFTER SEVERE SURGICAL OPERATIONS.

By HENRY SMITH, Esq., Surgeon,
Late House-Surgeon to King's College Hospital.

(Continued from p. 627.)

I come now to consider the causes of death after the operation for hernia—a subject replete with much interest to every member of the profession; as it is an operation which any one may be called upon without warning to perform, it is, therefore, highly necessary to have a correct knowledge of the dangers which attend it, and of those circumstances which have an influence in bringing about a fatal result. The mortality from this operation is, unfortunately, strikingly large; and one who has had no experience on the subject, or has not made himself acquainted with the recorded experience of others, might naturally wonder at the little amount of success which usually attends this operation—not in itself half so formidable or dangerous as many other operations in which the mortality is much less. Thus Dr. Inman has shown in the *Lancet* for Oct. 5, 1844, that the mortality in hernia was one in two; whilst in lithotomy, that most difficult and formidable operation, the mortality was one in seven. When we come, however, to look into the causes of death in those cases I shall mention, and in operations for hernia generally, we shall find that it is not to the mere operation that death is due, but that it is generally owing to circumstances which have nothing to do with the operation, and which I may with truth say are *allowed* to take place mostly through the neglect of the patients themselves, but sometimes through a want of care and decision on the part of the medical attendant.

Out of ten cases of strangulated hernia, which are down on my list, where the operation was performed there were six deaths; and we shall find that they sufficiently illustrate the various modes of death after this operation.

The first case, although it happened some years ago, I recollect well. The subject of it was an old, healthy man, between sixty and seventy. He had a hernia which became strangulated, and remained so for two or three days without proper measures being resorted to for relief. The consequence was, that when brought under the notice of the surgeon who operated, he was in a very bad condition, exhausted with suffering. Further delay was, unfortunately, permitted ere the operation was done. It was difficult and tedious; the man died whilst the operator was in the act of returning the liberated gut.

The second case was an aged female, who, I may say, lost her life through the unpardonable neglect of the surgeon who first attended her. She had been under his care for several days, for inflammation of the bowels; as she did not improve under his treatment she was sent into King's College Hospital; when a small, tense, and painful femoral hernia was detected. Her state was very serious: however, Mr. Fergusson deemed it right to give her the only chance of recovery. On opening the sac it was found that the bowel had become gangrenous, and had given way. Death ensued in ten hours.

The third case was somewhat similar, inasmuch as there had been great neglect and delay. The operation was performed, but the patient sank within a few hours, purely from exhaustion.

The fourth case was that of a young man, who had had symptoms of strangulated hernia for some time. He bore the operation very well, but symptoms of peritonitis set in, and he quickly was carried off.

The fifth case I have not the particulars of.

The sixth case was an elderly woman, who had laboured under symptoms of strangulation for some days before remedial measures were employed. The local symptoms were not severe, and the tumour was lax and not very painful; the surgeon, thinking that the operation might be dispensed with, unfortunately deferred it some twenty-four hours. The operation was long and tedious; she sank in a few hours entirely from the shock.

Now, most of these patients died from shock, one would say, carelessly and technically speaking, from the shock of the operation; we find that one poor fellow actually died under the knife of the operator—a thing rarely witnessed now-a-days. Is, then, the shock after this operation so dreadful and so much more severe than that from other operations? If not, how are these deaths to be accounted for?

There is a certain amount of collapse after this operation, as after all other severe operations; but we must inquire a little more closely, and then we shall find a true cause for the mortality. In all those cases where the patients died from exhaustion, there had been neglect, and the strangulation had existed for a considerable time before the operation was performed for its relief. In one case it had existed for five or six days, and was treated by the careless practitioner for inflammation of the bowels; it apparently never entered his mind to put his hand on to the abdomen and endeavour to ascertain what was producing all the mischief. I suppose he was one of those practitioners who, in their treatment of disease, confine themselves to symptoms only, and do not bother themselves about causes.

In the other cases the patients had neglected themselves until the time for a successful operation had passed by; we can thus readily understand how it is that such cases as these prove fatal. During the time that strangulation has existed there must necessarily have been great suffering; the powers of life were gradually getting depressed, and acute morbid actions were going on. In no one disease, perhaps, does exhaustion so soon show itself as in acute obstruction of the bowels, and in none are prompt measures of relief more imperatively demanded. The next effect to this great exhaustion is inflammation of the peritoneum; and, should not relief be soon afforded, the last and most serious occurrence—namely, gangrene of the intestine—will take place, and then little or no hope can be held out to the patient.

A surgeon is called to such a case. He finds his patient has been ill for some days; he is vomiting constantly; his belly is swelled and tender, and his pulse is rapid and small. He feels it his duty to operate; he does so, and, in some apparently desperate cases, recovery takes place: but, in the majority of cases, as in those I have mentioned, the slighter shock of the operation, added to the tremendous shock of the disease, is sufficient to carry the patient off. He may, in such cases, be said to die, not in consequence of the operation, but after the operation. It is the delay, and not the surgeon's knife, which destroys the patient. I believe that most of such cases would recover were the operation resorted to at an early period; but many persons, especially the poor and ignorant, do not apply until they feel their symptoms becoming intolerable, and great prostration of strength has ensued. But it is not in all cases the fault of the patient. It must be confessed that sometimes the medical attendant is much to blame: either through some inconceivable carelessness, or a natural timidity and dislike to using the knife, he allows the favourable opportunity to go by. If, through this extraordinary mental opacity, the hernia is not looked for, and consequently not discovered (and every one who has been much amongst the poor knows that some people, especially old women, although having a knowledge of the existence of a swelling in the groin, will not mention the circumstance), the patient is treated by calomel, croton oil, black draughts, and turpentine, with no benefit, to the great amazement of the attendant; or, if it is discovered, and the surgeon be a hesitating and undecided man, not trusting to his own resources, but flying to others for assistance, the hernia is squeezed and pushed about, and the symptoms aggravated, or valuable time is lost in preparing and trying various remedial measures for its reduction, and hoping against hope.

The dangers of this delay cannot be too strongly impressed upon our minds. That illustrious surgeon, Sir Astley Cooper (whose opinions on every point of surgery, and particularly on this subject, should be received with reverence), was strongly impressed with the truth of this when he said, "It is the most egregrious ignorance possible to delay the operation so long, as is often done, thereby wasting those precious moments which, if properly used, might have been spent in saving the life of the patient. The delay is the cause of the danger, and not the operation."

If we look over the reports of the various hospitals, we shall find that the majority of cases where death ensued after the operation for hernia were those in which strangulation had existed for some time, and the patients had become much exhausted.

We see, then, that a great number of persons die purely from shock after the operation, and that, too, unconnected with any particular lesion. But there is another condition which causes a fatal result; and, although it produces death by

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shock or collapse, yet it is peculiar, and requires a slight notice. I mean gangrene of the bowel. The second case I have mentioned illustrates this. When, as in this case, strangulation is allowed to continue for several days, the probability is that mortification of the bowel will take place; and, should the operation be performed, the patient will in most cases die, not certainly from the operation, but from the exhaustion caused by gangrene having taken place. If, as in this case, the bowel has become perforated, the contents will be extravasated into the abdomen, and peritonitis be caused; but the patient will probably die before this becomes extensive.

Out of six cases which my friend Mr. Haynes Walton operated on, there were two deaths. One of them was produced by gangrene of the bowel; it was not perforated, and there were only very slight traces of peritonitis. In this case strangulation had existed five days before my friend was called; the patient sank next day entirely from collapse, produced by the morbid state of this bowel.

In one of the cases I mentioned death was produced speedily and entirely by an acute attack of peritonitis after the operation. This is a frequent cause of death after all operations performed on the abdomen and pelvis, but especially so after hernia. Even in those operations where the peritoneum is not wounded, as in ligature of arteries and lithotomy, death is not unfrequently due to this cause, and we cannot wonder that it should frequently occur when the lining membrane of the abdomen is cut through; and thus it is we find that, although a patient may recover from the collapse of the disease and the operation, he may be carried off by peritonitis.

The surgeon is always anxious on this score, and fearful for the result when symptoms show themselves.

In a great majority of instances the inflammation which carries the patient off is not due merely to the operation itself, but it has existed previously, as one of the effects of strangulation; and, although by the operation the cause is removed, the effect is not in all instances controlled.

If peritonitis exists in a case where the surgeon is about to operate, he will feel much more anxiety, and will give a more guarded prognosis; the more severe the already existing inflammation, the more likelihood is there of its persistence, and *vice versâ*. These facts again show what lamentable consequences arise from delaying the operation; so long as strangulation exists inflammation will go on increasing; and, when the surgeon is determined to act, he will probably only have the disagreeable task of performing a useless operation, where otherwise life might have been saved.

This peritonitis may, I believe, often be brought about by the remedial measures which are too frequently carelessly and unscientifically employed before the operation, such as strong purgatives used before the hernia is discovered, and the repeated application of the taxis by various parties. In Mr. Walton's second fatal case, most extensive peritonitis, with considerable effusion of serum and lymph, existed. In his account of the case he says:—"The taxis had been applied by several surgeons, much force used, and the intestines terribly squeezed about." Injury to the intestines by means of pressing and squeezing will cause as much, and more, mischief than opening the peritoneum by the knife.

It may not be out of place here to dwell a little upon a subject which is, or ought to be, extremely interesting to every practical surgeon—namely, the propriety or not of opening the peritoneal sac, and to consider how far wounding the peritoneum influences the fatality after the operation for hernia.

There can be little doubt that operations on the abdomen are attended with more danger when the delicate and highly vascular investing membrane is wounded than when it is not; and there can be little doubt that a vast amount of patients die from inflammation of this membrane after the operation for hernia, in which the peritoneum is wounded; and it is this circumstance which has led some eminent foreign and British surgeons—Petit, Astley Cooper, Aston Key, and Luke—to find out a method, by altering the operating process, of obviating this danger; and their experience, especially that of Mr. Aston Key (whose monograph on the subject should be in the library of every surgeon) and of Mr. Luke, has been sufficient to show that this mode of proceeding may be in many instances followed with great advantage to the patient. At the same time it must be admitted that the objections which have been advanced against it by good authorities cannot be reasoned away. Any one who has had but a very limited experience in cases of hernia cannot help being convinced of the truth of this; and it, perhaps, is a question whether the greatly-to-be-feared danger from opening the sac—namely, peritonitis—is not in the majority of cases which prove fatal dependent, not upon the surgeon's knife and fingers, but on causes existing and acting antecedent to the operation, for in most of the fatal cases, especially when there has been delay, inflammation has already set in to a great extent; and, if so, it is not subdued, although the cause may be removed.

The objections against returning a hernia without opening the sac are, that adhesions may exist between the gut and sac, or between the convolutions of the gut itself, and thus that the strangulation may continue, although the external stricture may have been divided. Another serious objection is, that gangrene may have already taken place; and, should this be the case, returning the diseased bowel with the sac into the abdomen would be certain death. I have lately seen an instance where the operation was performed without opening the sac, and where death ensued. Upon *post-mortem* examination the bowel was found perforated by ulceration.

If the surgeon knew beforehand of the existence of gangrene, of course he would, in such case, open the sac; but, unfortunately, it is impossible to tell by symptoms whether or not this occurrence has taken place. The length of time the gut has been strangulated, together with some other prominent symptoms, may guide him to an accurate diagnosis; but not in all cases, as mortification of the gut depends more upon the tightness of the stricture than anything else. However, with whatever objections there are against this mode of operation, it appears evident that, in general, it lessens the fatality; although, in some individual cases not adapted for it, death may take place where otherwise a favourable result might have been brought about.

Another cause of death after this operation remains to be considered—I mean hemorrhage, which, either in a primary or secondary form, is one cause of death after all capital operations of surgery; but in this case there is a peculiarity, as it always occurs from direct injury of the vessels themselves during the operation, and these vessels are generally, but not always, irregular distributions of branches. In the operation for hernia, under ordinary circumstances, the bleeding is trifling; that which comes from the superficial pudic and epigastric is rarely troublesome to the surgeon. But it is from the deep-seated vessels that a fatal hemorrhage may take place. Those liable to injury are the internal epigastric and obturator arteries, and the spermatic is also sometimes in danger. If the surgeon is not cautious in his incisions he may wound the epigastric and cause a fatal hemorrhage. Sir Astley Cooper mentions one or two such cases. I have never heard of a case in which the spermatic was wounded, but it is unquestionably in a dangerous proximity. Sir Astley Cooper makes mention of a case where the femoral vein was wounded, the hemorrhage from which caused death.

The vessel most liable to be wounded, however, is the obturator artery. When it is irregular, instead of coming from the internal iliac, it arises with the epigastric, and runs either in front of or behind Gimbernat's ligament to reach the sub-pubic foramen. Thus it is placed directly in the way of the operator's knife, and it will almost be impossible to do otherwise than wound it.

I have now, I think, considered all the important causes of death after the operation for hernia, and I have dwelt upon this particular subject more fully because I think that, by a more careful attention to those conditions which bring about a fatal result, the mortality which is now so great in this disease may be materially lessened. There are many circumstances connected with the treatment of hernia, before and after the operation, which, doubtless, have much to do with the success or fatality of the operation, such as the employment of the taxis, the administration of purgatives after the operation, and bleeding. It would be quite out of my province, even had I the ability, to enter upon the merits or demerits of these remedial means; as it has only been my object in these papers to inquire into those causes of fatality which are produced by the operation itself. I cannot, however, finish this subject better than by adding a quotation from a gentleman who has had considerable experience in hernia, and who has written some interesting and truly practical papers on the effects of various remedial measures, adopted for the relief of this disease, have in bringing about an unsuccessful result. Mr. Maclwain, in the *Lancet* for March 25, 1848, says:—"There must always be some fatal cases of an operation so often performed under inauspicious circumstances, which we have no power of controlling; but at the same time, I am satisfied that an incalculable number of lives will be saved by any one who will simply regard the ligature on the bowel as the cause of the malady, and who will restrict his treatment, whether before the operation or afterwards, as closely as possible to such measures as have a speedy and direct tendency to liberate the bowel, and especially if he will avoid unnecessary delay, coarse, unskilful, and repeated taxis, bleeding, and purgatives."

In the next paper I shall consider the causes of death after amputations.

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GENERAL REMARKS ON ANOMALIES OF THE VENOUS SYSTEM.

By G. H. HALLETT,
Demonstrator of Anatomy in the University of Edinburgh.

The venous system of the human body, like all the other systems, is liable to deviate in one or more of its parts from what is termed the normal state. Such deviations are by no means uncommon; but the frequency with which they occur, more especially when considered in relation to the deviations of the arterial system, has been differently estimated by different anatomists. Some assert that anomalies of the veins are more common than anomalies of the arteries; while others are equally confident that they are not more frequently met with, and even not so numerous. We find Haller stating ("De Fabr. Corp. Hum.," vol. ii., p. 226) that he has found "many more varieties in the divisions of the veins, the origin and number of their branches, than in the arteries." Soemmering ("Gefässlehre," p. 77) believing that "the branches of the arteries are more constant in their course, unions, and distribution than those of the veins;" and Walther considering ("Physiologie," vol. ii., p. 204) that, "in consequence of this apparent superior constancy of the arteries, 'they are the more noble vessels.'" This, indeed, is the opinion entertained by almost all anatomists respecting the relative frequency of anomalies in the arterial and venous systems; but, notwithstanding the support it has received from the high authorities just quoted, other anatomists, whose experience could not have been less, and was probably greater, than that of their predecessors and contemporaries, have made contrary statements, and attempted to show that the two systems of vessels are nearly on a par in the number of their irregu-

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larities. Thus, Bichat (a) asserts that the veins and arteries are "equally" variable in the arrangement of the branches and twigs; while J. F. Meemel (b), who has prosecuted this subject with his usual success, shows, by the enumeration of numerous anomalies in the same parts of both systems of vessels, that "the veins are less liable to variation than the arteries."

It is not my purpose to enter fully into the details or the discussion of this question, which is undoubtedly one of importance in a surgical point of view; and I, therefore, refer the reader, who feels an interest in it, to the admirable memoir by Meemel, which has just been mentioned. In it the subject is fully discussed in all its bearings, and facts and arguments are adduced, most of which I have been able to verify. The conclusion, however, at which he arrives, is not of general application to the whole venous system: it can only be applied to the vena comites. Indeed, the differences of opinion concerning the relative frequency of anomalies in the two orders of vessels appear to me to have resulted chiefly from inattention to the fact that the veins consist of two distinct sets, viz. 1st, those accompanying the arteries from their commencement to their ultimate divisions; and 2nd, those pursuing a course distinct from the arteries, or being only in relation with their minuter branches. As will be immediately seen, the actual and relative frequency of anomalies in these two sets of veins differ materially; moreover, no comparison can possibly be instituted between veins not accompanying the arteries and the arteries themselves. There can be no doubt that the anomalies of the veins surpass those of the arteries in number; but, in attempting to make out the proposition, care must be taken to exclude all those anomalies which cannot possibly coincide with or have any relation whatever to, those of the arterial system. This has not been done, and it is in consequence of inattention to these circumstances that the whole sum of the anomalies of both systems has been taken, an average struck, and the result has been the general but, in some degree, erroneous opinion inculcated by the greater number of anatomists.

A careful revision of all that has been written on the subject, together with a large number of observations made by myself, leads me to believe that the following conclusions will be found to express correctly the relative frequency of anomalies of the different sets of veins to the arteries, and to one another:

1. The veins accompanying the larger arteries of the habit do not deviate from the normal state more than the arteries they accompany.

2. Veins accompanying the branches and twigs of the larger arteries are liable to deviate from the normal state in the corresponding arteries.

3. Veins pursuing a course independent of any trunks or branches of arteries, deviate very frequently from the normal state, are less constant than the vena comites, and appear to vary more than the arteries in the same part of the body.

That the larger veins are more constant than the arteries they accompany cannot be doubted. It may be as well to illustrate this by adducing some examples of anomalies which are most commonly met with, and are, therefore, best adapted for the purpose either of fixing the rule on the memory, or testing its accuracy. The renal arteries are very liable to vary, both in their number and in their divisions; the renal veins, however, vary but seldom, even in those subjects which have the arteries anomalous. Those anatomists who have most assiduously supported the more general view are unanimous in stating this, although they have adduced the fact merely as an exception to the general rule. Thus, we find Haller stating, in his "Element. Physiol." (vol. iii. p. 360), that the renal arteries vary more than any, and even more than their accompanying veins; and again, that the form of the renal veins is much more simple and constant than that of the arteries. Soemmering (a) coincides with Haller, and states that the renal veins vary less than the arteries.

Meemel has shown, in the memoir already referred to, that whilst the brachial artery is subject to numerous anomalies, the veins are normal amongst all the anomalies of the artery or its divisions; and remarks that variations in the venous trunks are rarely found, unless there are corresponding anomalies in the arteries. This remark I have had frequent opportunities of verifying. In the same memoir he has adduced, in support of the rule, the great number of varieties presented by the trunks passing off from the arch of the aorta, the veins corresponding to them being subject to one anomaly only, namely, the non-union of the two venæ innominatæ. Otto (b) and Isodore G. St. Hilaire (c) consider this to be the result of the difference in the form and distribution of the vessels, and, believing that this is a sufficient explanation of the fact, will not admit it in favour of the rule which Meemel was desirous of establishing, and which corresponds to the first of those given above. The objection they have advanced is not without its weight, but while admitting this, I am of opinion that the fact is greatly in favour of the rule, inasmuch as, while anomalies of the trunks arising from the arch of the aorta are comparatively of frequent occurrence, the single anomaly of the trunks entering into the formation of the vena cava superior is extremely rare—so rare, indeed, that an individual may spend many years in a dissecting-room without meeting with it once.

Were it necessary to bring a large number of examples in support of the rule, it would not be difficult to prove it on all the larger vessels in the body; this, however, is not required, and I shall, therefore, merely mention a few which have come under my notice. It is well known that the common femoral artery not unfrequently divides much higher than usual; indeed this occurs about once in every fifteen subjects; yet, in such cases, it is very uncommon to find the deep femoral vein join the superficial femoral vein higher up than ordinary. The obturator artery is one of the most remarkable as well as most interesting in the human body, in regard to the variations in its origin. I have had numerous opportunities of observing the more common varieties of that artery; the corresponding veins, however, were almost invariably normal, even when the artery was abnormal. The supra-scapular artery is not unfrequently derived from the axillary, instead of from the subclavian artery—an anomaly generally, if not always, found when the artery passes through the supra-scapular foramen; yet the accompanying vein enters the subclavian vein in its usual place. The irregularities in the origin of the mesenteric arteries, and the regularity of the termination of the mesenteric veins, might also be adduced in favour of the rule applicable to the larger vessels.

That the vense comites of the branches and twigs of the larger arteries are equally, but not more, inconstant than the corresponding arteries, is also certain. As far as my own observations will lead me to infer, I think myself justified in stating that in no case will any anomaly of the smaller veins be found where similar anomalies of the corresponding branches of the arteries do not exist; nor will any anomaly in the origin, course, or the distribution of the branches of the arteries be met with without anomalies in the corresponding veins. It is quite unnecessary to adduce any proofs of the validity of the rule just advanced, since those proofs would be merely a repetition of the rule in every individual anomaly of the smaller arteries and veins. Exceptions to the rule are nowhere to be met in the writings of our best authors, nor have I ever seen any; and this, notwithstanding that exceptions are presumed to strengthen a general rule, is the strongest argument in its favour. The general opinion was, and probably is now, opposed to the view. I have taken up the matter in accordance with my own observations, and the high authority of Meetnel and Bichat. Yet this opinion is not based on fact, and when advanced has not been supported, as it ought to have been, by the enumeration of numerous instances in which the veins were abnormal, while the arteries were normal. It is on this account that no weight can be attached to the statement of Isodore G. St. Hilaire (a), the latest writer on the subject, that the varieties of the smaller veins are more numerous than those of the smaller arteries; and, even were this true, allowance should be made, when instituting a comparison, for the great preponderance in point of number of the smaller veins over the vessels they accompany—a circumstance which has been entirely overlooked both by him and by other anatomists.

It is probable that the statement made at the beginning of the preceding paragraph, implying that anomalies of the smaller veins and arteries are invariably associated, may, after a more extended series of observations, require some slight qualification, but that would not in the least degree affect the general rule.

The third rule applies to the sinuses of the dura mater, the vena azygos, the hepatic veins, the whole of the subcutaneous veins, and some few others. The variations presented by most of these will be pointed out hereafter, when I describe the special anomalies which have come under my notice; it will, therefore, suffice to say in this place, that those variations are in some instances so very common and so numerous that it is difficult to determine exactly what is the normal arrangement of some veins. Bruschet (b) remarks that the varieties presented by the vena azygos are so numerous that it is seldom seen exactly the same in any two subjects: a remark which coincides with the experience of almost every anatomist. The subcutaneous veins at the bend of the elbow are also subject to numerous varieties, and the remark applied by Bruschet to the vena azygos is equally applicable to them. The same may be said of the anterior and external jugular veins, and of the subcutaneous veins of the thigh, although in the latter the veins are probably more constant in their number and arrangement than elsewhere on the superficial parts of the human body. It is worthy of remark that the places in which these veins are most frequently anomalous, are those in which a large number converge to unite in one common centre, or to distribute themselves in one or more large trunks. Examples of this will be found hereafter in the description of the anomalies of the confluence of the sinuses of the dura mater, the superficial veins at the bend of the elbow, and also amongst the hepatic veins, the anomalies of which, however, form an exception to the general rule, in being very uncommon and not numerous.

Having disposed of the question concerning the relative frequency of anomalies of the veins and arteries, and attempted to reconcile the contradictory statements which have been made from time to time by different anatomists, I may briefly notice an explanation that has been given, to account for the superior constancy of the vena comites, taken as a whole, over the arteries they accompany.

Meemel (c) has attempted to prove that the veins are more constant than the arteries, in consequence of the anteriority of formation of the veins. If this were actually the case, there would be no difficulty in accepting the explanation, as it would fully accord with the general laws regulating the formation of the body, and more especially with that which shews that the parts which are first formed are least liable to deviate

(a) *Op. cit.*, p. 419.
(b) "Lehrbuch der Pathologisch. Anat.," § 204.
(c) "Anomalies de l'Organisation," vol. iv. p. 448.

(a) *Op. cit.*, p. 450.
(b) "Reserches sur le Système Veineux," p. 8.
(c) *Loc. cit.*

(a) "Anatomia Generale," vol. iii.
(b) "Ueber den Werlauf der Arterien und Venen," in "Reil's Archiv fur die Physiologie," 1815, vol. i., p. 285, &c.

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from the normal type. But this explanation cannot be received, since, as we now know from the recent researches of embryologists, the arteries and the veins appear at one and the same time in the vascular layer of the germinal membrane, and would seem to be formed contemporaneously in the different parts of the embryo during its development. Nor is it supported by comparative anatomy, for in the lowest animals in which a closed system of vessels can be distinctly traced, arteries are found as well as veins, although the latter always preponderate.

The venæ comites are even more constant than the veins, pursuing a course distinct from the arteries; but here there is no reason to believe that the former are evolved before the latter: no law of formation will account for the differences between the two orders of vessels. Were we better acquainted with the general anatomy of the venous system throughout the whole range of the animal kingdom, and more especially the vertebrata, than we are at present, we might be able to assign some satisfactory reason for the difference, but, wanting that, we must leave the facts as they are.

Anomalies of the venous system conform in all respects to the general laws regulating irregularities of all the other systems. They are of three kinds: anomalies by displacement, by deficiency, and by excess; and these are sometimes found associated in the same subject, although it is more common to find the anomalies in the same subject all of one kind. It may also be stated in this place, that it is usual to find more than one anomalous vein in an individual, and that such anomalies are not only associated in general with others of the arterial system, but also with others of the muscular and osseous systems: some individuals presenting numerous varieties in every part and region of the body.

Anomalies by displacement are by no means uncommon, and are principally met with amongst the smaller veins. In most cases, the anomaly consists of, or is characterized by, a variation in the termination of the vein: as, for instance, in the termination of the external jugular vein in the cephalic vein; the external saphenous vein in the internal saphenous vein, and a host of others. Such varieties are comparatively slight, and, from not altering the surgical anatomy of any particular region, are seldom noticed. But this is not always the case, for the simple variation in the termination of a vein sometimes gives rise to a very extensive and important alteration in the relative position of the principal artery, vein, and nerves, in some important surgical region: as an example of this, I shall have to describe hereafter a marked alteration in the relative anatomy of the parts in the axilla, consequent on a slight difference in the position and union of the veins uniting to form the axillary vein.

Whenever a vein is deficient, which is often the case, some other vein with which it normally has a free communication is invariably much more fully developed than usual. Thus, when the external jugular vein is entirely absent, the anterior jugular is much larger than ordinary, or the branches which form it pass into the internal jugular vein in the upper part of the neck and increase its dimensions. So, also, when one of the lateral sinuses of the dura mater is deficient, the occipital sinus of the same side is usually enormously developed—so much so as to give rise to the idea that the lateral sinus has been displaced and is taking a direct course towards the jugular foramen. We see here a repetition of the same law which applies to the arterial system: namely, that unless the absence of a vessel be accompanied with the deficiency of the organ or part to which it is normally connected, its place will be supplied by other vessels, and those usually vicarious with it.

Anomalies by excess do not appear to be so common as those by deficiency, and, like those by displacement, are found principally amongst the smaller veins. They are caused by the doubling of a vein usually single; and this takes place either by the formation of a septum, as in the case of a double lateral sinus on one or both sides of the cranium: for this can be traced through various stages to the development of a complete septum passing horizontally across the sinus; or to the non-union of two veins which normally unite to produce the single trunk, each of them passing on to their destination distinct from each other, as in some cases of double external jugular vein. But, whatever may be the cause of the increase in number, the supernumerary vein is always very small, and, when united with that which may be called the normal one, their calibre seldom exceeds that of the normal vein.

All varieties of the veins are more frequently met with in the upper than in the lower half of the body; in the head and neck, and the thorax, oftener than in the abdomen and pelvis; and still more frequently in the superior than in the inferior extremities. There we find the venous system corresponding with the arterial, the muscular, and the osseous systems; and it is probable that they are all regulated by the same law: namely, that the parts which undergo the least change in the animal kingdom are the least liable to vary in the human body.

(To be continued.)

OBSERVATIONS ON OPHTHALMIC SURGERY.

By H. HAYNES WALTON, Esq.,
Surgeon to the Central London Ophthalmic Hospital, &c. &c.

This communication embodies an unusual case of congenital cataract, the operation that was performed, and the result, together with remarks thereon.

H. R., aged twenty-two, admitted at the Central London Ophthalmic Hospital Dec. 9, 1846.

Symptoms.—His vision is nearly lost, there appears to be a dense mist before him. The left eye is less imperfect than the right. The irides light hazel. The pupils are of ordinary size and act healthily. The crystalline lenses are of a lightish-grey colour: scattered over them are a few small white spots; opacities of the capsules. Glasses of a high magnifying power benefit him nothing. There is no oscillation of the eyeballs.

History.—When at school, at six years of age, he could not see like the other boys, requiring books in a much larger print, neither could he join in the usual school games. Spectacles were given him, but, as they produced no decided advantage, he soon left off using them. Ever since he has had any distinct remembrance of himself his sight has been growing worse and worse. Of his state in infancy I cannot obtain information.

Dec. 10. Dilatation of the pupils with belladonna discovers preternaturally small lenses, each of which is more opaque in the centre than at the circumference. Around them is well displayed the black marginal line which always exists when, with an opaque lens, there is also an arrest of its growth, the condition constituting what is designated as "cataracta cum zonula." There are now visible more of those white spots on the capsules. The dilatation, though very great, does not ameliorate the imperfect sight.

11. There being no contra-indication, and the pupil having been dilated, I performed on the right eye the anterior operation for solution, lacerating the capsule but slightly. Ordered to continue with the solution of belladonna twice a day, so that effectual dilatation of the pupil shall be ensured.

12. The pupil is dilated. The lens has advanced so as almost to touch the cornea, and has become more opaque. The capsule is opaque in its outer half.

14. The entire capsule is opaque; there remains only sufficient power of vision to distinguish light from darkness; there is more space in the anterior chamber.

16. A small nucleus has escaped from the capsule and wedged itself between a portion of the dilated iris and the cornea.

30. The nucleus has not been productive of any irritation or inflammation, and is undergoing absorption. The capsule is contracting at a part of its circumference.

Jan. 13. The nucleus is nearly removed; the pupil is clearing at the upper and inner portion; the patient can discern large objects.

27. There is slight conjunctival inflammation; a small piece of capsule has united to the iris; the nucleus no longer exists; the capsule is receding and contracting at its entire circumference, yet maintaining its normal connections by a few minute filaments. For the first time, it is apparent that its posterior hemisphere is opaque. Vision not much improved since his last visit.

Ordered ℞. Hyd. chlo., gr. iij.; ext. col. comp., gr. viij.; fiant pil. ij.; to be taken at once, and to be repeated two days after.

30. The inflammation of the conjunctiva has subsided.

Feb. 21. The capsule has contracted more at its circumference, as well as undergone interstitial absorption. Vision much improved.

March 1. Clear spaces have formed in the centre of the capsule.

20. All that remains of the capsule is an irregularly-disposed network of a few fibres, occupying the centre of the pupil, and a small circular band situated externally to the network, together with the minute filaments attached to it, and which were spoken of in the report of Jan. 27.

April 13. Two or three delicate fibres traverse the pupil; the circular band still remains.

29. The centre of the pupil is quite clear; its natural form is, however, interrupted by the adhesion; the little circular band has become smaller; its circumferential connections still exist. With glasses adapted for near and for distant objects the patient has excellent vision, and even without glasses he has tolerable sight, except for small objects. Discharged.

REMARKS.

There can be little question of the congenital origin of this case, and of the defect commencing in central opacities of the lenses. Considering it as such, is not a mere presumption founded on the want of its early history.

It is, however, very unusual for so long a time to be required for the completion of lenticular opacity, whether of congenital origin or otherwise. Ordinarily, when cataract is discovered in the child, it has already arrived at its limit, be it partial or complete. The partial congenital cataracts generally occupy the centre of the lens, and remain unchanged through life. Occasionally, however, after existing for several years, they increase, and ultimately the entire lens, or lens and capsule, become opaque. I was told by a gentleman of extensive experience, that it is at the age of puberty that this tendency for renewed morbid action develops itself. The following case induced me to make the inquiry:—

A female, aged twenty-two, who came under my observation eight years ago, had always possessed imperfect vision, but, within a short time of her application at the dispensary where I saw her, it had got much worse. In each eye there was a lenticular opacity, not central in either, but more so in the one than in the other. I watched the case for some time, but lost sight of it on my leaving London for a few months. When last she presented herself, the opacities had greatly increased, and, with the increase, vision was more impaired. I was enabled to ascertain unequivocally that in early life there were partial cataracts.

The central opacities might exist in so slight a degree as to produce little or no impediment to vision. Even when they are of large size the use of belladonna may often secure useful sight, when otherwise there is almost blindness. I have seen several such cases; the most remarkable occurred in two females, sisters, who with undilated pupils could see little or nothing, but, with the irides under the influence of belladonna, were able to perform the duties of house servants. In neither sister was her employer aware of any visual defect. A few drops of a strong solution of belladonna were used daily. But I must not proceed further on this part of the subject, as it

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is my wish to introduce no remarks that do not bear directly on my case.

It may recur to the minds of many of my readers that the "ophthalmia neonatorum," or purulent ophthalmia of newborn infants, often leaves a central opacity in the pupil, and some ideas might be entertained concerning such an origin of the cataracts in this instance. I have been asked on many occasions by practitioners, if there is not danger of such opacities increasing and involving the entire pupil. Opacities the result of such a cause are never lenticular alone: they are always capsular, now and then capsulo-lenticular; and when the latter the capsule is, I believe, the structure the first affected. I may mention, also, that such opacities are always central and have no tendency to increase, and there is sometimes a central opacity of the cornea in addition. Again "cataracta cum zonula" exists only as a congenital affection—a defective formation.

A question often arises whether the spots, or streaks, or specks, that are seen in the pupil are of the lens or its capsule. A correct knowledge of their true nature is now and then not without its practical bearing. I have known surgeons puzzled about them.

When of the capsules, they are of a dead chalky white, resembling much the white spots now and then seen on the finger nails, the result of injury to that portion of the nail, while yet at its matrix.

When of the lens, they may present many appearances, but a lenticular opacity is never of a chalky whiteness, except when there is a deposit of earthy matter, and then the whole lens partakes of the change. By making the patient look downwards, and examining the pupil obliquely, great assistance is added to the diagnosis. Opacities of the capsule will be seen to be well defined, and to be more opaque and more anterior than those of the lens, which will be of a cloudy or watery appearance, and may or may not be defined, this depending on their size, whether they pass far into the body of the lens or not.

Even when the entire capsule is opaque, the same chalky whiteness will be observed as when it is partially affected, although there may be degrees in the intensity of the whiteness, as it is more or less thick in different parts. When examining it obliquely there will not, of course, be the definition of the partial opacity, because it cannot be seen behind at any part.

In soft cataract uncomplicated with thickened capsule, as in the instance before us, I prefer the anterior operation, for solution—that of passing the needle through the cornea; by it, the eye is subjected to less violence; and I make but a small opening in the capsule.

In all needle operations, except where thickened capsule alone is concerned, I am always careful to do but little at a time, either at a first or any subsequent operation. I am of opinion that a large portion of unsuccessful needle cases owe their failure to the rough usage, so to speak, to which the eye is but too commonly subjected at individual operations, as well as to the too frequent repetition of the use of the needle.

I believe, moreover, that the success of operations for solutions is greatly overrated. If we consider success to consist merely in a removal of an opaque lens or capsule, and thus a clean pupil obtained, then my assertion is unfounded. But how frequently is it that, after the pupil is cleared, defective vision shows that during the treatment such changes have been effected within the organ as to render the surgeon's efforts useless, or nearly so; and this without there having appeared any external inflammation of any consequence! Various changes from the natural condition of the iris are common accompaniments of such failures. It must not be forgotten that the cases sometimes fail from the supervention of acute inflammation after the use of the needle; but such instances are, as far as my experience goes, fortunately rare.

I must now say a few words about the escape of the nucleus of the lens. Cases are recorded of the presence of an entire lens, and even of large nuclei, in the anterior chamber producing serious ill; but, judging from my own experience, I do not regard the occurrence of such dislocations with much dread. The first case of the sort that I ever saw, occurred in a friend's practice. The needle was being used for solution, and the lens slipped into the anterior chamber. The operator immediately extracted it; he feared that destructive inflammation would ensue. Soon after that I saw another lens dislocated under similar circumstances by a different operator; it was left in its new situation, and in fourteen days was absorbed. Thrice I have known the lens dislocated from blows, and yet always absorbed; although in one of the instances the subject was a scrofulous female, in another an infant of three weeks old. When a lens with an opaque capsule is dislocated, it is not to be expected that the eye will remain in so quiescent a state. When absorption cannot proceed, irritation must be looked for.

I know of an instance which occurred under Mr. Tyrrell, of congenital cataract with its dense capsule dislocated into the anterior chamber; irritation ensued, and extraction was performed. As a rule, I should never remove a dislocated lens, or a dislocated nucleus, merely because it was dislocated. Even if irritation or inflammation ensued, I should first try corrective measures, before resorting to extraction. The testimony of others justifies this proceeding. The irritation or inflammation sometimes disappears, and absorption proceeds.

It is quite unaccountable why the lens is absorbed so much sooner in some instances than in others. Sometimes, without any apparent cause, there is a suspension of absorption, whether the lens be in its capsule or otherwise; and that, too, when the process of absorption does not seem interrupted by an accession of inflammation.

I had good reason for suspecting that the adhesion of the iris to the capsule was the result of the belladonna having been discontinued for a time, whereby the iris came into contact with a torn and irregular portion of capsule, caused by the escape of the nucleus. But even in the dilated state a pupil may become adherent, provided it be in contact with a capsule that is inflamed. I look on adhesion of iris and capsule as almost invariably the result of inflammation of one or other of these bodies previously to their coming into contact.

I have no doubt myself that, under certain circumstances, opaque capsule is absorbed; but what those conditions are I am unable positively to say. In the case before us, and in others that I have specially noticed, and more particularly one on which I operated a few months past, absorption of the capsule to a greater or less extent has taken place.

Although there was a shrivelling or a folding on itself of the capsule at the circumference, there was in the centre most undoubtedly a disintegration, a gradual interstitial absorption. I believe that at the circumference, too, there must have been absorption, as well as contraction or folding: for the little band that remained when the last report was made had become smaller and more delicate, and was evidently thinner and more attenuated, than it would have been had there been a mere rolling-up of opaque capsule. The same remarks hold good in other cases, where a small shreddy roll in the centre of the pupil is all that remains of a once entire opaque capsule. Besides, what became of the posterior capsule which was seen to be opaque? It appears to me probable that the degree of inflammation that a capsule undergoes and I believe that it never gets opaque without first inflaming, considerably influences the absorption. To act on this theory is one of the reasons that deters me from lacerating extensively a transparent capsule. There can be no doubt that the more a capsule is injured and torn, the more it will inflame. I am always desirous to adopt any measure that appears likely to remove or mitigate the annoyance that one is pretty sure to encounter when having to rid the pupil of opaque capsule. At the request of the patient, I defer operating on the left eye until next summer.

I wrote to my friend J. Browne, Esq., of Belfast, enclosing the foregoing case, and asking if he had met with any similar at his Ophthalmic Infirmary. Shortly after he sent me the details of a somewhat parallel case, which is so interesting, both in itself and on account of the correspondence that it bears to my own, that I shall submit it to the public, together with his accompanying remarks, in the next number of the *Medical Times*.

13, Bernard-street, Russell-square, Oct. 12.

ON TARDY DENTITION AND DEFECTIVE DENTITION.

By J. L. LEVISON, Esq., Brighton.

What we call *freaks of Nature* may be traced either to extreme action or to a defective power in the functions of some particular organs or tissues, or else to extreme action or feebleness in the organism itself. Hence TARDY DENTITION may be traced to some defective condition of the dentinal pulp, or a feebleness of its secretory power, which may be proved by a few examples.

Some time since a lady called upon me to request that I would see her daughter at her own residence, as she could neither walk nor ride, having been an invalid for some years past. I did see her, and found the young lady lying on a couch, looking very thin and emaciated; she appeared about twenty or twenty-two years old. On examining her mouth, I found the temporary *incisor* and *cuspidatus* on the right side *in statu quo*, looking not only as intruders, but strikingly different in colour and size from their more recent associates on either side of them. On the left side of the mouth there appeared an open space instead of teeth of any kind, but I was told that she had been wearing a gold plate with two mineral teeth to fill the *vacancy*; that she had broken them, and had sent for me to renew them, &c. I then carefully examined the gums on the left side, and could feel the crowns of the *incisor*, and also of the *cuspidatus*, within their respective alveolii; and hence considered that this was one among many other cases I have seen of tardy dentition. By a more minute examination I ascertained that there were two stumps left in the temporary sockets on which the plate had rested, and requested the history of the case. In reply, I was told that the two milk teeth, which had occupied the now vacant space, had become dark and unpleasant to the eye, and, on application to a dentist, he had recommended their excision, and their loss to be supplied by the artificial method previously mentioned. But I declined following such injudicious practice, and urged the removal of the stumps of the temporary teeth, deeming it better to have the space in the mouth than interfering with the beneficent intentions of Nature: for having a plate resting on the stumps acted as a pad, and prevented the development of the two teeth, which, though very tardy, still they were gradually being matured. I should not, however, have thought this case sufficiently important in itself, but that it was connected with a deviation from the ordinary experience of the dental practitioner; that a great many of the members of this young lady's family had also a precisely similar defective state of mouth; the hereditary tendency being derived through the mother, as she had also for a number of years the temporary *incisors* and *cuspidati* of the upper jaw; and all her children, who resembled her more than the father, had a similar defective state of the teeth, giving, from this peculiarity, to them "a family likeness," however actually modified the form of the features, stature, &c. One of the sons had, besides, his temporary molars of the upper and lower jaws after sixteen. (a) There did not exist anything to indicate what caused such apparent

(a) The *bi-cuspides* are substituted for the temporary molares.

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caprice—the health in many of the family so circumstanced, although not robust, did not appear sickly, save and except the young invalid lady spoken of at the commencement of this article; and the *osseous* system of them seemed in a normal condition.

Another instance I would mention under this head; it was that of another young lady, the daughter of a retired physician. She had a great deficiency in the number of her teeth: for, instead of fourteen in the lower jaw at the age of sixteen, she had but eight, and nine only in the upper jaw. But in this case there was an evidence of some deficiency of osseous material, as she had suffered in her childhood from *mollities ossium;* she was also very diminutive in stature, whilst the arms and legs were inconceivably small. The teeth, from their deficiency of bony matter, soon decayed; and her poor, thin lower maxillary seemed as if it were sure to break, should she require the teeth extracted. The father was a very sickly and feeble man, and the mother was also an invalid. In this instance we have some *data* for explaining the tardiness of the dental development. She had inherited a weak and enfeebled body, with feeble digestive functions; there was congenitally a deficiency of earthy matter in the bones, and all the functions for building up the bodily organs were tardy and ineffective. Hence her diminutive stature.

When in practice in Yorkshire, some years since, I took the model of the jaws of an old man, about seventy years old. He wished to have a set of artificial teeth. They were made to fit the models most accurately, and, when tried in the mouth, something obstructed them in the upper jaw; when the cause was sought, to my surprise I observed a beautiful white *cuspidatus*, with more than two-thirds of the crown visible. I proposed removing it, but, as my patient was in a second childhood, he positively refused, being assured that he should have a new set of teeth! His mouth was very narrow, and the lips small. In all probability the *cuspidatus* on the opposite side was yet in the jaws. But he died soon after, and so I had not any opportunity of proving this.

DEFECTIVE DENTITION may seem only another term for the latter kind of cases; but yet there seems to me a decided difference. In those we have cited, the teeth, though tardy in their development, still existed, and the gums gave evidence that such was the case; but in those now to be noticed, there is often one lateral or central *incisor*, or *cuspidatus*, or *bi-cuspis*, absent in whole families; and, from the most careful examination, it seemed evident that there did not exist any rudimentary pulp.

The practical use of a knowledge of cases of tardy or defective dentition is to impress the fact that temporary teeth ought to be extracted according to set rules: for although the teeth, like all other parts of human organism, are under fixed laws, in the order of their development—*cæteris paribus*, when the bodily health is vigorous—yet there are so many exceptions in the state of civilized society (where the jaws are rarely sufficiently expanded), that we repeat, it is injudicious merely to practise by the A B C rules laid down, but we must modify our practice by the particular circumstances of the case. Although, for example, the central incisors of the lower jaw have their temporary fangs absorbed by the sixth or seventh year, yet not unfrequently, in scrofulous or strumous subjects, these teeth are frequently not in a state for removal before the tenth or even twelfth year; or in other words, their permanent substitutes are not sufficiently developed. The only sure and correct practice is not to be influenced by the age, but rather by the state of the permanent teeth. And this information is to be obtained by an examination of the gums; not a mere superficial inspection, but by carefully feeling their anterior and posterior surfaces.

From this latter plan not being adopted, there results, also, often very great deformities. Lately I had one of this kind; from the temporary central and lateral incisors not being extracted in time, (a) the permanent teeth took a direction, and made their appearance, anterior to the temporary ones. This not being attended to, a permanent deformity is the result: for when the jaws close, there is a space of full half an inch between the upper and lower central incisors; hence, for cutting the food, they are absolutely useless; and a very pretty girl is much distorted because the upper lip is thrust forward, giving her a very different expression to that which she would have had, had her mouth been attended to in time.

CASES OCCURRING IN PRIVATE PRACTICE.

Communicated by THOMAS HUNT, Esq., St. Day, Cornwall.

INJURY OF THE HEAD, ATTENDED WITH LOSS OF THE SENSES OF SMELL AND TASTE.

N. P., aged 40, a healthy miner. While at work under ground on the 18th of June last was struck by a stone on the vertex, which had fallen a distance of nine fathoms, but had touched the sides of the shaft in its descent. He fell, but did not become insensible, and was able in a short time to climb to the surface, a distance of 227 fathoms, with the assistance of a rope around his body. I saw him about two hours after the accident. He had vomited twice. On examining the head, a small longitudinal wound of the scalp, covering the upper part of the left parietal bone, was discovered, which I enlarged antero-posteriorly down to the cranium, but could not discover any fracture. A dossil of lint was placed in the wound, and he was sent home.

19. Complains of headache, sickness of stomach, indistinctness of vision, and ringing in the ears. V.S. to Oj.; calomel and jalap purge; low diet.

20. Still complains, but in a less degree, of pain in the fore part of the head, &c. Ordered leeches to the forehead, and blue pill, gr. v., n. et m.

21. Cold lotion to the head.

July 2. The mouth having become sore, the pills have been discontinued. He sat up for the first time to-day, and finds that he can neither smell nor taste anything.

Aug. 18. A thin lamina of the parietal bone came away, and the wound, which up to that time had been open, healed in a few days.

He had returned to his employment under ground on the 4th of August, perfectly restored to health, and has continued well up to the present time, Oct. 27, but has lost the senses of smell and taste. He has *sensation* in the tongue and lining membrane of the nose perfect. Ammonia held to the nostrils produced irritation of the Schneiderian membrane and sneezing, but he cannot distinguish the odour or taste of any substance that is presented to him, though repeated trials have been made for the purpose of ascertaining the fact with every pungent substance contained in the surgery of kitchen.

CASE OF IMPERFORATE RECTUM AND URETHRA.

E. T.'s wife, confined with the fifth male child on Sunday, Oct. 24.

Tuesday, 26. Nurse reports that the child has not voided the meconium or made any water. Examination showed the anus perfectly well formed, but the finger introduced within detected a complete closeness of the rectum about three-quarters of an inch within the sphincter. A catheter introduced into the urethra could not be passed beyond the pubis; a large trochar was pushed about three inches in the direction of the guts, but, no fæces following, nothing further was done.

27. Has had fæcal vomiting for the last twenty-four hours. Died about nine p.m.

RUSSIAN RECRUITING.—The Emperor of Russia has suspended the recruiting law until Jan. 1, in all those parts of the empire visited by the cholera.

(a) Their fangs were not absorbed.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF MEDICINE.

Meeting of Oct. 19; M. BEGIN in the Chair.

LITHOTRITY.—The conclusion of Professor ROUX's communication on this subject occupied the entire meeting. The learned professor remarked that the destruction of the stone by crushing should never be attempted in children under ten years of age; that considerable size or hardness of the concretions constituted also insurmountable obstacles to the method; and that it was, in his opinion, improper to adopt it when the calculi were numerous, and that great vesical pain or violent spasms of the reservoir of urine imperatively pointed to a speedy removal of the disease, and therefore precluded lithotrity. After stating these (not very precise) counter-indications, Professor ROUX proceeded to lay before the meeting the statistical results of cystotomy in his own private practice: he had altogether performed the operation upon fifty-four patients, six of which were under ten years of age, and all six recovered; of the remaining forty-eight cases, eleven terminated fatally. In one instance no calculus was found in the bladder, but fortunately the subject, a vigorous young man, recovered perfectly. The mortality in M. ROUX's practice had, therefore, been rather more than one in five—a result agreeing perfectly with that of M. Civiale's statistical tables, and further showing that the results of the operation in hospital did not differ so widely as had been stated from those of private practice.

THYMIC ASTHMA—SPASMA GLOTTIDIS. BY DR. PURY.

In the "Abeille Médicale" we find several cases of asthma infantium terminating fatally. The author, Dr. Pury, found on dissection a remarkable development of the thymus gland, and does not hesitate to ascribe the disease to the pressure of this enlarged body upon one or both lungs. He conceives that the morbid condition of the thymus recognises for its principal cause a scrofulous hereditary predisposition, and a certain unknown and unhealthy condition of the maternal milk. These opinions being, in some measure, those generally adopted on this subject, we think it may not be uninteresting to the readers of the *Medical Times* to lay before them a very different view of the matter, which we read in a most valuable inaugural thesis by Dr. Hérard.

According to Dr. Hérard, the disease is characterized by short attacks of suffocation, separated by more or less prolonged intervals of apparently perfect health. Without any premonitory signs, the respiration is suddenly interrupted for ten, fifteen, or twenty seconds, at the close of which the attack is terminated by a sonorous and convulsive inspiration, which is pathognomonic of the disorder, and which has caused it to receive from some pathologists the name of laryngismus stridulus. During the fit the contractions of the heart are violent and irregular, the pulse small and frequent, and the hands and feet are thrown into a state of painful convulsion; the duration of each fit varies from a few seconds to one or two minutes. In the numerous instances of the disorder witnessed at the Children's Hospital by Dr. Hérard, he never saw any one attack last so long as eight, ten, or fifteen minutes, as it is asserted by Hauff and others. The fits, at first of rare occurrence, become gradually more and more frequent, and may be repeated so often as twenty-five times in one night; Hackman counted even fifty in the space of twelve hours. Dr. Hérard, considering the malady as the result of spasm of the glottis or of the diaphragm, recognises three forms, according as one or the other, or both, these organs are the seat of convulsion. When the spasmodic attack is limited to the glottis, the respiration is simply arrested for a few seconds, and is restored without the production of the special cry produced by inspiration during convulsion of the diaphragm. In the second form, in which the diaphragm *alone*

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enters into spasmodic action, the attack is marked only by several successive and sonorous inspirations; the symptoms of asphyxia are not by any means so well marked as in the first variety which we have described, because the glottis does not participate in the convulsion. In the third form both the glottis and diaphragm are simultaneously convulsed, respiration is first suspended, and one or more sonorous inspirations are heard, and, not being followed by expiration, asphyxia is soon imminent; these sonorous inspirations resemble the crowing of hooping-cough, and are produced by the same cause. Death may occur—1, during the attack from asphyxia; 2, it may result from cerebral congestion; or, 3, be the consequence of gradually increasing debility.

On dissection of the bodies of children who have died of this disorder, M. Hérard asserts that no characteristic alteration can be detected. As to the hypertrophy of the thymus gland, Dr. Hérard refuses to admit that it has anything to do with the production of this form of asthma, and shows, from carefully drawn-up statistics, that the volume of the gland is in harmony with the state of health or weakness of the constitution, and not with the presence of asthma. It is not a little singular that anatomists should disagree on a point which would, at first sight, seem so easy to ascertain, as the question of the normal size of an organ; and it is not without surprise that we find Meckel averaging its weight at twenty grammes, Burdach at twelve grammes, Haller at eight or ten, and Haugsted positively asserting that in children of the same age the gland may weigh from four to twenty grammes! Haugsted is much nearer to the truth, according to Dr. Hérard, who attributes the great size of the thymus entirely to the vigorous constitution of the child. The Germans place in the brain the cause of this malady, and refer it to an "arrêt de développement," marked by the incomplete ossification of the fontanelles, the enlargement of the liver, the patency of the foramen ovale of the heart, the late evolution of the teeth, and the hypertrophy of the thymus. Dr. Hérard cannot adopt this view, and observes, with much reason, that it is precisely in large, well-formed children that the thymus is found in a state of hypertrophy. Dr. Corrigan has considered inflammation of the cervical part of the spinal chord as a cause of spasma glottidis, and has published an interesting case in the *London Medical and Surgical Journal* (1838), to illustrate this position. But this case, in which spinal irritation, at least, seems evidently to have produced the convulsive symptoms which now occupy our attention—this case has remained solitary; and, whilst it compels us to admit that it may occasionally bring on spasmodic contraction of the glottis, it leaves us at liberty to admit that it is far from being its only cause. The anatomical alteration which Dr. Hérard has met with constantly, viz., pulmonary emphysema, cannot by any means be looked upon as a cause, but as an effect of thymic asthma.

TREATMENT OF INTESTINAL PERFORATION. BY PROFESSOR PIORRY.

In the *Revue Médico-Chirurgicale* for October, we find a case of intestinal perforation recorded by the learned professor; and the treatment having very materially differed from that generally employed against the form of peritonitis caused by stercoral effusion, we translate the case, together with some of the professor's remarks.

A man, aged twenty, of a vigorous constitution, was admitted into hospital during the month of March, 1835, labouring under well-marked symptoms of typhoid fever. On April 14, the signs of an intestinal perforation showed themselves; a quantity of fluid became effused in the abdomen, gas being at the same time generated in the peritoneal cavity. These circumstances induced M. Piorry, notwithstanding the concomitant acute disorder, to perform paracentesis: three pints of fetid serum were removed; and the liver and heart, pressed upwards in the chest and interfering with respiration before the operation, now descended into their place, thereby causing immediate relief. The peritoneal secretions having rapidly increased, the operation was repeated four times during the ensuing six days, and, after a temporary amelioration, more severe symptoms set in, and the patient died on the 14th of May, one month after the occurrence of the intestinal laceration. On dissection, the anatomical changes due to peritonitis were noticed, *i. e.*, purulent fluids and false membranes; the odour of the effusion was stercoraceous; the intestines were united in the cœcal region by adhesions; and a perforation was found in the neighbourhood of the cœcum, in the centre of an inflamed Peyer's gland. On the liver and in the lungs tubercles were discovered.

Such is, in a few lines, the case related in the "Revue." M. Piorry does not believe in the efficacy of the treatment of perforation by opium; indeed he asserts that, in the cases treated in Dublin and in Paris, the diagnosis was not based upon sufficient grounds. We are inclined to adopt a different opinion; and although we can readily concede the utility of removing, in a given case, irritating effusions from the peritoneal cavity, even during acute disease, still we would be tempted not to rest solely our hopes upon this one method; and we should most assuredly resort to the other therapeutic agents which experience has shown to be advantageous in similar cases. However, the success obtained in the treatment of acute hydrophthalmia by puncture of the eye, in pleurisy by paracentesis thoracis, &c., plainly shows that the dangers attending punctures of the large serous membranes are not in any respect so great as it was generally supposed some years since; and in the case recorded by Professor Piorry, we find that not only the five-times-repeated paracentesis was not productive of any unpleasant consequences, but that in all probability they delayed the fatal termination of the disease considerably beyond the period at which it might naturally have been expected.

CHRONIC HYDROCEPHALUS.—A child, aged five years, had since two years been affected with porrigo capitis, when, in the year 1835, its mother applied to the head an ointment, which caused the eruption to disappear rapidly. But from that time forward, headache, weakness of the legs, and crossness, made their appearance, together with a gradual increase in size of the head. The child was examined three months after the cessation of the disease of the scalp; the head measured fifty-nine centimètres and four millimètres. Eight grains of calomel were prescribed every five days; some nitre, and also a large blister upon the scalp, to be renewed every week; the head gradually diminished in size, and at the end of the third month measured fifty-one centimètres only. From that time forward the child enjoyed perfect health.—*Revue Méd. de Dijon.*

OBITUARY.—M. Coletti, Prime Minister of Greece, who has recently died, before attaining this elevated political position had practised medicine.—*Revue Médico-Chirurg.*—Dr. Miguel, the first editor of the "Bulletin de Thérapeutique," died at Nice on Oct. 9.—Burdach, the illustrious professor of physiology of Kœnigsberg, has also died in the course of the present month, in his 80th year.

D. M'CARTHY, D.M.P.

ACADEMY OF SCIENCES.

Meeting of Oct. 24.

The following communications were received:—

1. Researches concerning the periodical comets, by M. Leverrier; who also presented an extract from a letter from Mr. Hind, of London, announcing the discovery of a small planet of the eighth degree of magnitude, Oct. 18, and stating that the comet found by Madame Brünicker on Oct. 11 was discovered on Oct. 7, at Cranbrook, by the Rev. W. R. Dawes.

2. Reply of M. Becquerel to M. Claudet, on some peculiarities noticed with regard to the action of the solar rays in the use of the Daguerreotype process.

3. Paper from M. Legris, on a means of raising a double quantity of water at half the expense at present employed.

4. Note on the degree of exactitude with which the orbits of planets and comets can be determined.

5. Observations on the yellow fever of the Port of Spain, by Dr. Audemard.

6. Additions to a note communicated Oct. 10, relative to the application of the formula of interpolation of Laplace to the calculation of the differences of various orders of geometric longitudes and latitudes.

7. New observations on the employment of mercurial unctions in the treatment of typhus fever, with four cases given at length, detailing the treatment and final cure, by Dr. Mazade.

8. A paper, by M. Lessier, on the nature of typhus fever, and its treatment by mercurials, stating that such treatment does not rest on good grounds, and is altogether empirical.

9. New system of transmission, by M. de Dequerville.

10. Continuation of a former communication from Dr. Gustave Crusell, of St. Petersburgh, on the electrolytic treatment of syphilitic ulcers, cancers, &c.

11. Astronomical communication from M. Hoduit, of St. Louis, Missouri.

12. Memoir on elasticity, by M. Lesfaur.

13. Note from M. Barrel in reply to M. de Ruolz, relative to a communication from the latter at a former sitting, on the electro-gilding, and rejoinder of M. de Ruolz.

14. Communication from M. Foëx, of Marseilles, relative to locomotive engines.

15. Communication from MM. Bobiere and Moride, recommending the use of protochloride of tin in the place of hyposulphite of soda in removing traces of chlorine after the bleaching of rags for the manufacture of paper.

16. Paper from Dr. Bardeleben, of Giessen, on the action of salt when introduced directly into the stomach by means of a fistula, and its effect on the gastric juice.

17. Interesting memoir on the digestive organs of the culex pipiens, or water tiger, showing their analogy to those of the ruminantia, by M. Puchet.

18. Paper on the successful treatment of external hemorrhage by the application of ergotine, in cases where it was impossible to use ligatures, and compression was insufficient to arrest the hemorrhage, by M. J. Bonjean.

A Physical Sign of Pneumonia of the Apex of the Lungs.—Dr. Boling, of Montgomery, Ala., says, that pneumonia, commencing at the apex of the lung, is, in proportion to the number of cases, the most frequently fatal form of the disease. He also mentions a physical sign that was present in three cases which he attended, the observance of which may probably lead to a correct diagnosis at an earlier period, in some instances, than it would otherwise be made. This is a fine mucous or crepitant rhonchus, seemingly seated in the larynx, loud enough to be heard distinctly at the distance of two or three feet from the patient, and so persistent that it is not removable, or but momentarily, by an effort to expectorate which the patient may make, while at the same time there are present none of the signs of bronchitis or laryngitis. The patient seems perfectly indifferent to its presence, which would not be the case if the sound were produced by the presence of tenacious mucus in the larynx itself. The sound is only seemingly produced in the larynx, for in applying the stethescope immediately under, or just above, the clavicles, it will be found to proceed from the apex of one or other lung, which will be found the seat of inflammatory action. It would seem that the sound there produced in the pulmonary vesicles must be conveyed by the larger bronchial ramifications, numerous and superficial at this point, to the larynx, where, in consequence of the thinness of the tube and its proximity to the surface, the deceptive impression of its production in this organ, from the presence of a small quantity of viscid mucus, is created. It is the indifference of the patient to the presence

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of the sound, but especially its *persistence*, which constitutes its peculiar and distinctive feature, and upon which its value as an evidence of pneumonia commencing in the apex of the lung depends.

Onions in Dyspnœa caused by Rarefaction of the Atmosphere.—At the mines of Potosi, says Dr. Dick, which are 13,000 feet above the sea level, strangers suffer during the first year of their residence from a dyspnœic affection, called puma, in the language of the country; for this the natives recommend the use of onions. Endemic remedies of this kind are worth attention.

Inversion of the Uterus successfully treated.—Dr. M'Coy, of Harrisville, Ohio, was called to a woman, twenty-one years of age, that had been delivered by a midwife. When seen by him two days afterwards, her respiration was diaphragmatic; skin hot and dry; pulse small, wiry, incompressible, and 115 in a minute; mouth dry; tongue covered with a dark brown fur. There was extreme abdominal tenderness; the lochia suppressed, and continued bearing-down pains. The uterus on examination was found inverted, and the vagina reflected in the form of a ring round the pedicle of the tumour. The hand was introduced in a conical form, indenting the apex of the tumour, which was gradually but perseveringly carried up through the os uteri, which entirely relieved the expulsive after-pains. An infusion of chamomile was ordered to be thrown into the vagina every two hours, and the abdomen to be fomented with hops; five grains of pulv. antimon., two grains of calomel, and half a grain of opium, given in the form of a powder every two hours. Eighteen hours afterwards there was decided improvement in all the symptoms; the bowels relieved; the abdominal tenderness subsiding; the lochia returned; the pulse fallen to 90, soft, and full; the skin relaxed and moist; and the secretion of milk established. The patient speedily recovered.

Statistics of American Private Obstetric Practice.—Dr. J. C. Bliss has taken notes of 820 cases of delivery. The sex of 797 has been noted. Of this number 395 were males, and 402 females. This is considerably at variance with most reports, the number of male children generally preponderating from three to ten per cent. The presentation in 771 deliveries is recorded. Of this number there were:—

Natural presentations	738
Breech	15
Funis and breech	1
The foot	8
The face	1
The face towards pubis	7
The arm and abdomen	1

From this it will appear that in one case out of every twenty-two the presentation was preternatural. Of 820 cases, forty were premature births—one in twenty; twenty-one were born dead; in seventy-nine cases the membranes broke at the accession of labour; and the average duration of labour then was ten hours and three quarters; there were eight twin births—a proportion much less than occurs in the lying-in hospitals of Europe. Out of the whole number three were cases of instrumental delivery. Of these three cases, the forceps were used twice, and the perforator and crotchet once. In the arm presentation turning was resorted to, and delivery effected by the feet. Four cases were preceded by puerperal convulsions—a proportion of one to every 205 births. In one case only was the urine examined, when it was found to be albuminous. In one case, in which the attack occurred in the seventh month, labour came on and the fœtus was delivered three days after the convulsions had ceased. The child was dead and partially decomposed. The placenta was attached over the mouth of the uterus in three instances. In one instance the edge of the afterbirth was over the mouth of the womb. The patient had repeated hemorrhages for two months before delivery, but it was at no time alarming. Labour commenced with profuse flooding, followed by syncope. The vagina was plugged, which arrested the hemorrhage till the head advanced so as to make pressure. In the second case, a female had first attended, and there had been flooding for ten hours, which had produced a state of extreme exhaustion. The hand was immediately passed up through the edge of the placenta, the feet brought down, and the child delivered in three minutes. The mother lost less than a pint of blood at the time of the operation, but died in an hour and a half after. In the third case, flooding commenced on the Sunday, not profuse. On Wednesday a profuse hemorrhage occurred suddenly. A physician was called in, who found the os uteri dilated to the size of a shilling. An hour afterwards Dr. Bliss was called in, when the flooding was so great and the exhaustion so extreme that the patient appeared moribund. A small portion of placenta was found, on examination, to protrude from the mouth of the womb. The feet of the child were brought down, but a difficulty was experienced in accomplishing delivery in consequence of its death and partial decomposition. The mother survived only about twenty minutes. The loss of blood was inconsiderable during delivery.

Fracture of the Skull in Children.—Dr. F. H. Hamilton, of the United States, makes the following remarks in reference to fracture of the skull of children:—1. That if a fracture with depression occurs in a child, and no signs of compression follow, no operation is justifiable. 2. That if symptoms of compression do actually exist, and there is no external wound which will at once admit the elevator to the fracture, unless the coma has continued several hours, no operation, not even the incision of the scalp, is generally proper; and if, after the lapse of several hours, the coma continues, yet is not great, or appears gradually diminishing, it is still well to delay an operation. 3. If in connection with coma there exists also a considerable external wound, so that instruments can at once be applied to the skull, and the elevator has been used with skill and without effect, still the propriety of resorting to the saw or trephine may be doubtful, because at this period of life it is difficult to make a successful operation. The trephine must traverse the entire thickness of the skull (not nearly through, or only through at points, leaving the balance of the inner plate to be broken up with the elevator, since the bones are too soft to be broken up by the elevator; and then the teeth of the saw are almost certain to lacerate the dura mater, because at this age it is more closely attached. Having made a sufficient opening with the trephine to admit the elevator, the depressed fragments are not always easily raised, owing to the elastic nature of the part on which the instrument rests, so that it often becomes necessary to introduce it again at another point. With these difficulties, connected with the fact that the bones often come back spontaneously, an operation can be seldom necessary.

Strychnine in Chronic Bronchitis.—Dr. P. H. Clarke, of Port Washington, relates several cases of what he considers to be chronic bronchitis cured by the administration of strychnia. He first tried the remedy upon himself, after having been afflicted a number of years, and the medicine effected a perfect cure. When he commenced using it he was emaciated, had night-sweats and continued mucous expectoration, attended with cough, at times very severe, after which the muscles of the larynx became so completely relaxed that he could not speak above a whisper, but unattended with pain. The commencing dose of the strychnine was one-twentieth of a grain, suspended in mucilage, three times in a day, and increased the dose every third day until one-fifth of a grain was taken. The remedy was continued for about four weeks with complete success, and no difficulty of breathing has been since experienced.

Syphilitic Buboes.—Mr. Hamilton recommends that a bubo should, if possible, be discussed without opening, even when suppuration has taken place. This can be done even where the integuments are thinned and fluctuation is distinct. It is best effected by the administration of mercury and the application of a few leeches; gentle compression at first, gradually increased by means of a compress of lint, wash with the lotio plumbi, and a spica bandage. As the bubo gets pale, and the inflammatory action is on the decline, the strong tincture of iodine painted on the surface tends very much to hasten the absorption. In this way many buboes have been put back when suppuration was fully formed.

Extra Uterine Fœtation within the Fallopian Tube.—Mr. S. Cobbold, of the Norwich Hospital, relates a case, in "The Provincial journal," of a woman who suffered from severe pain about the right iliac region, accompanied by general debility and slight constipation; her symptoms, when first brought under medical treatment, were those of great prostration, with slow and feeble pulse. Opium and ether were administered with some benefit, and the local pain was relieved by the application of two small successive blisters. Constipation yielded to gentle aperients. Medical services were discontinued for a few days, when they were again required, in consequence of a return of all the former symptoms: costiveness, however, presenting a more prominent feature. For this the croton oil was administered internally with good effect. In a week or two afterwards the patient, after sitting up for several hours, was suddenly seized with severe pain in the right iliac region, and shortly after expired. At the autopsy the abdomen appeared greatly distended, and there was a general exsanguine appearance of the corpse. The peritoneal cavity was loaded with dark coagulated blood. A tumour was also found, nearly the size of a cricket-ball, in the right iliac fossa, the external surface having a delicate greenish hue, and the whole being semi-transparent, allowing a fœtus to be distinguished floating in a quantity of fluid. After separating the coagula from it, one third of the mass was observed to be enveloped by a cyst, the whole resembling the universal ball-and-socket joint; the pouch answering to the socket was evidently a part of the Fallopian tube, which had been enlarged and distended in so enormous a degree by the continued and increasing fœtus and membranes, that at length it ruptured, giving rise to the hemorrhage. The uterus was a little larger than in the unimpregnated state, and its inner surface was coated with a semi-gelatinous deposit, which could be easily scraped off; it was about the eighth of an inch in thickness. The distended tube, after rupturing, had contracted at its base, so as to effect in part the expulsion of the fœtus and its membranes. In the right ovarium the corpus luteum was observable on section; no other change was noticed, except an increase in size. The passage between the cystic portion of the tube and the uterus was found impervious and obliterated. The left ovarium and Fallopian tube had undergone no perceptible change.

Extirpation of both Ovaries.—Dr. F. Bird related to the Westminster Medical Society the case of a lady, aged thirty-two, from whom he had lately extirpated both ovaries. One was of nearly spherical form, of compound character, and had weighed about twenty pounds; the other was of a very irregular figure, consisting of several lobules or distinct cysts attached to a common base: these had been filled by different secretions, the larger of them having contained much cholesterine; it weighed about four pounds. Both tumours were adherent to the abdominal walls, the larger one having been in its upper portion covered by the firmly adherent omentum, one of the arteries of which was greatly enlarged, and was ligatured. The patient rapidly recovered, and has since menstruated. The probable cause of the disease in the left ovary was inflammation; and the diagnosis was rendered difficult from the uterus having been drawn up so far out of the pelvic cavity that it was impossible to make any satisfactory examination.

Beans as a Strengthening Aliment.—Dr. Robert Dick says, that it is usual for the copper miners in Central Chili to carry loads of ore of two hundred pounds' weight up eighty perpendicular

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yards twelve times a day. When they reach the mouth of the pit they are apparently in a state of extreme exhaustion—covered with perspiration, their eyes almost starting from their sockets, the mouth open, the chest heaving. After a brief rest they cheerfully descend again. Their breakfast consists of sixteen figs and two small loaves of bread; their dinner of boiled beans; their supper of roasted wheat-grain. Meat is scarcely ever tasted. They would prefer to live on bread without beans; but, as it is found the latter fit them for great exertion, they are compelled to use them by their masters.

New Instrument for preventing Pressure on the Umbilical Cord.—Dr. Joos, of Schaffhausen, employs this instrument during the act of birth in cases in which delivery is effected by version and bringing down the feet, and in which a fatal pressure on the cord is to be feared when it is prolapsed and cannot be returned. The instrument consists partly of caoutchouc or leather, in which are embedded in the body of the tube a series of steel rings three lines broad, and applied in such a manner that between every two rings the space of a line remains. The rings are not entire, their periphery forming almost 11-12ths of a circle, the remaining twelfth corresponding to the slit. These rings are firmly united with the caoutchouc or leather, and that neither the surface of the interior of the tube nor the slit will present any irregularities, these parts being lined with any convenient substance. The instrument is just large enough to admit the cord, and its length may vary according to circumstances from four to eight inches. In order to maintain its situation in the pelvis after its introduction, a handle made of whalebone may be fixed to one extremity, or the tube itself lengthened in the manner of a pen, the half of which has been cut away. In order to introduce the umbilical cord, the tube is opened on one side at the slit by a finger or otherwise, and by means of the other fingers the cord is placed within, and when left the enlarged slit instantly returns to its natural position.

Treatment of Varices by Electro-puncture.—This remedy has been employed by MM. Bertani and Miani, in the following manner:—The limb is carefully bandaged from the toes to a point just below the knee, and also from the groin to within six fingers' breadth of the other bandage. The patient standing, the surgeon then pierces the loops of the venous trunk, just above the lower bandage, with a platinum needle, the point of which is left free in one of the loops. A second, third, and fourth needle are similarly disposed in other venous loops, two being on the outside of the leg. To the needles which are fixed on the inside the zinc pole of the battery is attached; to the other, the copper pole. A current is then continued for ten minutes through two needles, the inferior of the inside, and the superior of the outside, ones; after which it is changed for the other two needles. During the operation very little pain is experienced. In the first case reported, the patient only submitted to a single application of the needles, which produced coagula. A second and third case were completely successful—one in ten sittings, the other in two.

Tobacco and Erysipelas. — Mr. C. Arnecaple mentions the case of a young man suffering from an attack of erysipelas of the head: the delirium was severe, and he had had no sleep for two nights. He happened at this time to ask for a pipe, and, as he was in the habit of smoking a great deal, he was permitted to have one. He seemed to enjoy it exceedingly, and sat up in bed, taking a few whiffs between his delirious ravings; the exertion, however, was too great for him, and before he had consumed more than two-thirds of the tobacco he was obliged to lay it aside; but he was now much calmer, and lay down more quietly than he had done before for some time. The composing effect continued to increase, and within twenty minutes he was sound asleep. From this time the case progressed favourably.

Perforation of the Stomach.—Dr. Fletcher brought before the Birmingham Pathological Society a specimen of perforation of the stomach. The patient from whom it had been taken was a young female who was taken ill in the night with violent pain in the bowels. The case being considered one of acute enteritis, the abdomen was covered with leeches and medicine given. No relief, however, was experienced, and in a few hours the patient died. At the *post-mortem* examination extensive peritonitis and perforation of the stomach were manifested. The patient was quite well the night before she died, and had partaken of a hearty supper. For two years previously to her death, however, she had been occasionally attended for pain in the region of the stomach, but for the last three months of her life she had not required medical aid. —[To correctly diagnose perforation of the stomach is oftentimes no easy matter. Sometimes, however, the symptoms are sufficiently indicative of the nature of the internal injury. A few years ago we were called to a young woman, eighteen years of age, servant at an inn, who was seized with violent pain over the abdominal region after drinking a cup of tea. In order to relieve her agony she took another cup, which, however, only increased her pain, and so much distention followed that her dress was obliged to be immediately loosened. Shortly afterwards we saw her, and she was then in a state of complete prostration; pulse scarcely perceptible at the wrist; cold perspiration: distended abdomen, which was also exceedingly tender on being touched; occasional attempts at vomiting, without, however, ejecting anything. The case being suspected, little medicine was administered; leeches, however, were applied over the abdomen, and in nine hours after the occurrence of the pain she expired. The autopsy showed an opening near the cardiac orifice, perfectly round, and of a size to admit the end of the thumb, through which the contents of the stomach had escaped into the abdominal cavity. There were no other evidences of disease. The patient had complained for rather more than two years before her death of pain over the epigastric region, but while she had taken occasionally some medicine she had never been kept from her employment.—Ed. *Med. Times.*]

Delirium Tremens—Modes of Dying.—A young man suffered from delirium tremens. After fifty hours' violent raving, says Mr. Arnecaple, during which he had taken large and repeated doses of laudanum, he sank into the calmest sleep possible. In this state the breathing was light, and without stertor; the pulse had lost its rapidity, but was quite regular; the pupil, on raising the eyelid, was observed to be much dilated. He continued in this state for five hours, when his brother, on looking at him, found him dead. In another case, the patient, who was a drayman, remained in a state of the most violent and active delirium, incessantly struggling with his attendants, and endeavouring to get out of bed. Upon this condition opium had no influence. The vital powers gradually failed, but, while asphyxiated with accumulated mucus in the trachea and bronchial tubes, he acted as though he were driving his team, and the death rattle was mingled with terms of encouragement to his horses.

Symblepharon Successfully Treated by Plastic Operation.—Dr. Hays, surgeon to Wells Hospital, U.S., attended a farmer, forty-six years of age, with adhesion of the lower lid of the right eye, at its inner portion, to the eyeball. He stated that this adhesion had followed an operation for the removal of a pterygium performed about eight years since. The band of adhesion was short, and greatly impeded the movements of the eye, rotation outwards being impossible. An operation was determined on and performed in the following manner:—The patient, being placed on his back on the operating table, and the lower lid depressed by an assistant, the operator raised the upper lid with his left hand, and with the right passed a probe at the external side of the band down to the point of reflection of the conjunctiva, pressed the point inwards, so as to make it prominent, and drew the lid from the eyeball. The assistant now holding the probe, the operator with a scissors divided the whole extent of the band. The incision left a triangular space, the base of which was at the edge of the lid, uncovered by conjunctiva. With a very fine sewing needle, slightly bent, armed with fine silk, three ligatures were passed through the edges of the conjunctiva—one near the apex, a second at the base, and the third at the middle portion of the wound; the ligatures were then drawn tight, by which the conjunctiva was brought into complete coaptation, tied, and cut off close to the knot. Cold flaxseed mucilage was ordered as a dressing to the eye; a dose of salts at night, and an antiphlogistic diet. Union promptly took place, and in a few days the ligatures were removed. A weak solution of copper was then directed as a collyrium. Under this treatment the enlarged vessels contracted, the mass left adhering to the eyeball was diminished by absorption, and the patient was discharged with the recovery of perfect freedom of motion of the eyeball.

Treatment of Acute Articular Rheumatism.—Dr. Ruschemberger, surgeon, United States navy, says, in a case of acute rheumatism accompanied with nodes and syphilis, an ineffectual attempt to obtain the specific effects of mercury had been made on the commencement. When in health the patient weighed 220 pounds. He had been confined to bed four months, and when admitted into hospital was unable to bend the knee, wrist, elbow, or finger joints, without great pain. Cold-water dressings were kept constantly applied to the painful joints, half diet was allowed, and he took at bedtime, every night, two pills composed of four grains of opium, and four of sulphate of quinine. On the tenth day of treatment he left his bed. His weight was 136 pounds. At the expiration of twenty days the pain had disappeared; the quinine and opium were discontinued. There still remained, however, thickening and stiffness about the joints. For this, phosphoric acid, in doses of about twelve minims, was prescribed every four hours in syrup of pumus verginians. Under this treatment the functions of the joints were completely restored, the patient gained twenty pounds in weight in thirty days, and the nodes disappeared. While taking the quinine and opium, the bowels, which had been constipated, were regularly moved once in twenty-four hours; but, under the use of phosphoric acid, it was found necessary to occasionally prescribe castor-oil, and an anodyne at night. "I have," says Dr. Ruschemberger, "been in the habit of treating acute rheumatism, upwards of two years, by cold applications to the hot and swollen joints, and administering at night from three to six grains of opium, with an equal quantity of sulphate of quinine, regulating the quantity by the condition of the pupil alone. With a dilated pupil I found the patients to bear the largest dose without inconvenience; and I have not yet met with a single case in which pain was not completely removed in from twenty-four to thirty-six hours, provided the attack were recent or of not more than a week's duration. Large doses of opium, especially in combination with sulphate of quinine, do not tend to constipate, but rather to relax, the bowels. After the pain is removed by the opium, I then resort to the use of iodide of potassium in medium doses—say from five increased gradually to ten grains, three or four times daily."

Excision of the whole Genital Organs.—Dr. Beck, assistant-surgeon, U. S. army, reports the following case:—A man, thirty-six years of age, was confined in the guardhouse during a fit of delirium tremens. A few minutes after his confinement, with a short, thick, one-bladed pocket knife he completely excised the whole of the genital apparatus, close to the body. Flinging them violently into one corner of the room, he exclaimed, "Any fool can cut his throat, but it takes a soldier to cut his privates off." In ten minutes after, the regimental surgeon was in attendance, and endeavoured to secure the sper-

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matic arteries, but their retraction was so great that he failed in getting them. As the bleeding was profuse it was considered necessary to apply the actual cautery, which was accordingly done. In five minutes the bleeding had nearly ceased; a large bunch of rags was then applied as a compress, and secured by appropriate bandages; his hips were a little elevated; cold applications to the abdomen, and perfect rest and quiet for three hours, after which he was removed into the general hospital. The amount of blood lost was estimated by those present at one gallon. One fact worthy of notice is, that eight or ten minutes after the bleeding commenced, complete consciousness was restored, nor did he exhibit a symptom of delirium tremens afterwards. The dressings were not touched all the following morning, when he evinced a disposition to pass water. He had been placed on antiphlogistic diet. There was some difficulty to find the urethra, which, however, was eventually done; a catheter passed, and the bladder evacuated, with but little blood from a single artery, which was staid by torsion. After this his water passed without artificial means. Dry dressings were applied, until a yellowish sloughy secretion came off, when the wound was dressed with chlorinated soda and simple cerate. The last few days of the healing process a silver catheter was introduced, to keep the urethra open; afterwards a tent, around which the orifice contracted with a hard callous edge. The man recovered without an unfavourable symptom.

REVIEWS.

A System of Surgery, by J. M. Chelius. Translated from the German, by JOHN F. SOUTH. 2 vols. 8vo.: vol. i., 814 pp.; vol. ii., 1009 pp. London: Henry Renshaw, 1847.

This is no ordinary work, whether we consider its size, the matter of which it is composed, or the information which it contains. When we reflect on the little that has been added to the literary fame of our country by the hospital surgeons of London since the days of Sir Astley Cooper, the appearance of such a work as the present deserves particular notice.

Of late years the medical press has brought forth little of importance connected with surgery; its productions have been confined, or nearly so, to laud books, manuals, elements, &c.; no new work having appeared worthy to succeed the labours of our predecessors, Sir Astley Cooper, Home, Hunter, &c.

We do not intend by these observations to depreciate the value of the smaller or elementary works which have appeared of late years, many of which are most valuable, and contain much information; nor to deprecate their continuance, but rather to censure those whose position in the profession has placed the acquirement of much important knowledge within their reach, but who have nevertheless refrained from imparting such knowledge to their professional brethren through the press, and have thus failed to contribute their share to disseminate professional information and sustain the professional character of the country.

How different the conduct of Sir Astley Cooper! Who can behold his legacies to the profession—his works on hernia, diseases of the testis, the mamma, the thymus gland, &c.—and not regret that as yet a successor to him has not appeared amongst us? The profession and the public have a right to expect the performance of this task by our hospital surgeons; its non-performance cannot be considered otherwise than as a neglect of duty.

Chelius's Surgery, although professedly a translation from the German, is, in reality, composed of a translation, and an original work, by Mr. South, for in no other light can the great additions which he has made to Chelius be considered; the German treatise acts the part, as it were, of a nucleus, around which has been collected a large mass of important information, in the form of original observations, and extracts from other writers.

This adds considerably to it; it does not form the principal value of the work, as the original observations of Chelius are so succinct and condensed as to require very copious explanations, having been written "as a text-book for his class, and published with the view of taking it with him into the class-room, where he should enlarge upon and explain it, and thus form his lecture."

This work is divided somewhat differently from all preceding medical treatises, the subjects being classed not alphabetically, as in a cyclopædia or dictionary, or according to the parts affected, but according to their deviation, either diseased or accidental, from the normal condition; it consists, in addition to some introductory observations, of eight divisions: the first being "Inflammation;" the second, "Diseases which result from the disturbance of physical continuity;" the third, "Diseases dependent on unnatural coherence;" and so on to the eighth and last. Diseases are thus classed according to the results which the diseased action has produced.

The first division treats of inflammation, and embraces not only the several doctrines regarding the physiology of this state, but also the inflammation of the different tissues of the body, with a share of the treatment necessary. The opinions of Mandt, Gueterbock, Gulliver, and others on the nature and character of the globules to be found in the blood, both in health and disease, are recorded at considerable length, and possess much interest.

Inflammation of the lining membrane of the arterial system is treated of in rather a short notice, under the head of "Arteritis." The importance of the subject, more especially in connection with the tying of these vessels, and the supervention of secondary hemorrhage, as first noticed by Dupuytren, would have justified more extensive observations.

In the treatment of erysipelas, Mr. South condemns the application of leeches "under any circumstances, as the irritation resulting from their use itself frequently excites erysipelas, or rather erythema." We do not think Mr. South speaks from actual experience in this matter, as we have known leeches applied most frequently, and with the most beneficial effect. It is possible that in hospital practice, amongst patients of broken-down constitutions, such objections may exist to their use, but certainly not under other and more usual circumstances. The concluding portion of this division contains much useful matter regarding inflammation of the joints and spine, in which the opinions and treatment of the most eminent foreign and English surgeons are recorded and considered.

The *second* division is the largest and most important portion of the work, occupying upwards of 800 pages of the first and second volumes; it treats of wounds, and includes in this term all solutions of continuity, in both the soft and hard parts, and some of the diseases consequent thereon, and the necessary treatment. Having considered the various kinds of wounds usually treated of, the author notices poisoned wounds, resulting from cuts received during dissection, bites from serpents and insane animals, and especially treats of hydrophobia, to which sixteen pages are devoted. Wounds and injuries of the head and brain are next considered, and, subsequently, wounds of the throat, chest, abdomen, and their contents; which are followed by fractures, syphilis, diseases of the bones, the treatment of fistula, dislocations, hernia, aneurism, &c.; the author regarding these several diseases as "resulting from the disturbance of physical continuity."

In noticing the treatment of fractures, the various instruments recommended by Desault, Brünninghausen, Boyer, Hagedoon, Sauter, Cooper, Earle, Amesbury, &c., are fully considered. With regard to the "quæstio vexata" of the treatment of fractures of the shaft of the femur, in the straight or flexed positions, Mr. South inclines to the former, and recommends the use of "four long deal splints," well padded. He prefers this mode of treatment, "because the patient is generally very easy with it, and is capable of moving about a little in the bed, without disturbing the fracture." In treating of "unnatural joints resulting from the non-union of fractures," Mr. South has omitted the treatment, by mercury, as recommended by the late Mr. Colles, although one of much merit.

The following observations by Mr. South on the treatment of syphilis are extremely judicious:—"The surgeon now first takes care to discriminate between the syphilitic and non-syphilitic sore, and adapts his treatment accordingly, with mercury, under careful regulations—for the former as a specific, but for the latter either as an alterative, or simply as an occasional purge, taking care at the same time to improve the general health by medicine and good air."

The observations on hernia are confined, or nearly so, to the surgery of this disease; its anatomical characters, being but briefly noticed in them, will be found, many of much practical importance, interspersed with the opinions of the best authorities of the present day on the points of treatment which are still open to discussion. Mr. South has paid considerable attention to the mode of operating in cases of strangulation, by dividing the stricture without opening the sac. He assigns to Mr. Key the merit of having revived this mode of operating, but unjustly so, as Mr. Key recommended the return of the hernial sac.

Mr. South quotes largely from Mr. Luke's observations on the operation, which conclude in the following manner:—"The proportion of failures in the attempt is, from its nature, greater than that which is experienced in hernia strictured by the margins of the abdominal apertures; yet, inclusive of these failures, I have not any reason to consider their general amount large, having sustained only five failures out of thirty-two cases on which I have attempted to leave the sac unopened." It is somewhat surprising to find Mr. South remarking, "that the success resulting from this practice, so very far beyond what usually happens in cases of strangulated rupture, leads to the suspicion that some of the number mentioned might, perhaps, have been relieved with other operation than the taxis." Such remarks imply a want of judgment on the part of the operator, which, we are quite sure, cannot be imputed to him, and feel confident Mr. South did not intend to charge with.

That this operation for strangulated hernia will actually supersede the other in all but a few instances cannot be doubted; the great success which has attended its performance in the hands of many modern surgeons, both metropolitan and provincial, should have already established it as that generally adopted, instead of the old method of exposing the inner surface of the sac and general peritoneal cavity.

That this membrane may be, and often is, cut into with impunity under many circumstances, cannot be questioned; but it is not so in cases of strangulated hernia, where the membrane is already extensively inflamed, and approaches a fatal condition: under these circumstances the addition of an incision into, and exposure of, the inflamed surface cannot but be dangerous.

At the end of the chapter on hernia is a table of cases operated on by Mr. South during the years 1835—1840, in which time he operated upon fifteen cases, of which six terminated fatally, the mortality being somewhat more than double that attendant on Mr. Luke's cases. Mr. South's candour in recording these cases cannot be too highly commended; the contrast may induce him to adopt the operation of not opening the peritoneal sac.

Aneurism is treated at considerable length, the various opinions and modes of treatment being recorded. The mode of treatment by compression, which has lately been more successful than when formerly practised, is noticed, and some interesting cases of cure related. Much

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judgment is shown, both by the author and annotator, in the selection of cases suited to the various modes of operating—a part of the treatment not sufficiently attended to. Chelius remarks, "The opening of the sac must be conceded, if the aneurism be diffused and accompanied with much extravasation of blood, and in aneurism at the bend of the arm," &c. From want of this discrimination in practice much injury has been done, and much unnecessary pain inflicted. When, and for many years after, Hunter first proposed his mode of operating, it was apprehended that the collateral circulation would seldom be sufficient to sustain the vitality of the limb; experience has proved it otherwise, and established the fact that, in the majority of instances, the supply of blood by the collateral circulation is so ample as not to interfere with the success of operation, whenever, as in wounded arteries, the vessel is free from disease, and indisposed to contract. The mode of tying the various arteries is detailed, along with some valuable hints on the several operations.

Amongst the subjects treated of in the remaining divisions of the work are, stricture of the rectum and urethra, stone in the bladder, lithotomy and lithotrity (these operations being compared and their applicability to different cases considered), cancer, amputation; excision of the joints, lower jaw, &c. &c.

The diseases enumerated form but a small portion of those treated of in the work; most, if not all, affections within the province of surgery have received attention in proportion to their importance. Indeed some, not usually treated of in such works, have been well and carefully considered: we allude now to diseases of the womb, including mal-positions of this organ; vaginal fistulæ, and other affections, which the foolish objections of surgeons have frequently banished from surgical works. We know of no class of diseases more worthy of the highest surgical attention, and of receiving due consideration in all surgical treatises; we regard these chapters as adding much to the value of the work.

The position of the author of this work, one of the Professors in the University of Heidelberg; the circumstance of the original treatise having already passed through six editions; and the standing of the translator, one of the surgeons to St. Thomas's Hospital, might well guarantee the production of a work of much merit and considerable research: although not fulfilling our expectations in some particulars, it has surpassed them in others, and may be regarded as a valuable addition to the medical literature of the day. Its character is less brilliant than useful; and although, perhaps, less attractive than some of the productions of the French surgeons, it will be found a work of sound practical information.

Members of the profession, who reside at a distance from the metropolitan centres, or in the colonies; those who are, or purpose to be, connected with our military or naval departments; indeed, all who may desire or who, from their position, may find it necessary to have a book of reference at hand, which they may regard as an authority, will derive much assistance from this work, as supplying a desideratum long wanted in the profession.

There are, however, some defects in it, which we trust to see rectified in a future edition; and we have no doubt it will take its place as one of the standard works of the profession, and form, as it is intended it should, an "Encyclopædia of Surgery." The principal defects are in the style and composition of the work—a phraseology being frequently adapted, long since obsolete, and sometimes unintelligible; and in the limited notice that has been taken of some of the translator's British contemporaries in the metropolis and elsewhere. These defects are easily, and no doubt will be, remedied.

We cannot take leave of this work without bearing testimony to the fidelity exhibited by the publisher, in the regularity with which it has been brought to a conclusion, and its execution as regards mechanical details. These are matters which are worthy of notice, as contrasting with the still unexecuted medical works which "drag their slow length along."

Appended to "Chelius" is an analytical index of unusual length: this was essential, and will be found most useful in enabling the inquirer to consult any part of the work without trouble or loss of time.

TO CORRESPONDENTS.

THE MEDICAL TIMES may be procured by an order on any Newsman or Bookseller, or it will be sent direct by post from the Office of the Medical Times *to Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d.*

A Handsome Portfolio *for holding the "Medical Times"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.*

Covers for Binding *the Numbers of the "Medical Times" are now ready, and may be had, by order of any Bookseller, or at the Office, price 1s. 6d.*

Medicus, London, *writes us that he has had considerable opportunities of studying the cholera. He says "that there is no doubt that the atmospherical influences acting upon the nervous system produce those symptoms which so clearly mark the disease." He recommends as remedies calomel and opium; also, the inhalation of oxygen gas.*

Mr. Bains.—*The true nature of the compound has not yet been correctly determined. The work referred to is one which is an authority on the subject of which it treats.*

M. A., Oxon.—*The licentiates of the College of Physicians may be examined in Latin or English; if in Latin, it is recorded to their honour in the archives of the institution. A knowledge of Greek is also necessary. The possession of a university degree does not entitle a person to become a licentiate without an examination.*

An Inquirer.—*We know nothing of the parties. They cannot be qualified practitioners.*

Surgeon-Apothecary.—*We believe there is some intention of issuing a new pharmacopœia. The advance of science requires that the physician's book should frequently undergo alteration, that it may not be entirely laid aside.*

M.R.C.S.—*The operation was performed by Sir Astley Cooper, at Guy's, and was successful, the patient surviving it many years.*

A Medical Assistant.—*Gutta percha may be easily obtained at the surgical-instrument-makers; the tree which yields it was entirely unknown to botanists; it is now ascertained that it belongs to the natural order* Sapotaceæ.

S. O., Maidstone.—*Gelatine, such as is used for capsules, is made from the cuttings of fresh skins; the inferior kind from common glue.*

A Poor-law Surgeon.—*The meeting was one where great unanimity of feeling prevailed. Our correspondent would no doubt have been much gratified had he been present. We are sorry for his disappointment. There is no doubt that the degrading pay will undergo revision, and that hereafter a little more liberality will be manifested towards union surgeons, at least by the Government.*

A Student.—*The letter not being authenticated was destroyed. It is necessary that correspondents should give their names and addresses when they make statements which are not calculated to elevate the character of individuals to whom they refer.*

Mr. Edw. Stanmore.—*The back numbers of the* Pharmaceutical Times, *having been reprinted, can now be obtained.*

Zeta.—*The case of compound fracture of the thigh will probably appear in an early number.*

Mr. Farmer, Putney.—*Communication received.*

Mr. Macilwain, the Albany.—*The request shall be attended to.*

An Old Subscriber.—*The degree of M.D., from Rostock, can now only be obtained by a* viva voce *examination.*

Mr. T. Campbell, Burton-crescent.—*We consider that an inquest ought to have been held in both cases; but a* post-mortem *examination instituted, especially in the first. Medical evidence has often been dispensed with by coroners, with what effect we know, parties having escaped justice who had been guilty of murder.*

M. S.—*The course will be published in the* Medical Times.

M. D.—*We feel honoured in being added to the honoured list of good men who have been subjected to the gross vulgarity of the worthy writer.*

A Pupil.—*We have arranged with a distinguished savant for a valuable course on the subject named.*

Philiatros *desires to know "which is the best manual to prepare for passing the Scotch universities." Perhaps some of our correspondents will answer the question.*

We have received two communications in reference to Mr. Goldsmith, of Liscard, who, though requested by the coroner at an inquest held upon the body of a child named William Edward Harrison, produced no diploma. Mr. Goldsmith, it appears, said that he was a member of the Edinburgh College of Surgeons; but the secretary of the college stated that the name of John Henry Goldsmith was not enrolled on their books.

Letters and communications have been received from Mr. Hill, South Cave; Dr. Kinloch; Mr. Slevin, Longford; Mr. Sanger, Alfreton; Mr. Cotterell, Charlebury; Medicus, London; Mr. Bains; M. A., Oxon; An Inquirer; Surgeon-Apothecary; M.R.C.S.; a Medical Assistant; S. O., Maidstone; a Poor-law Surgeon; a Student; Mr. Edye, Stanmore; Zeta; Mr. Farmer, Putney; Mr. Macilwain, the Albany; an Old Subscriber; Mr. T. Campbell, Burton-crescent; Philiatros,

NOTICE.

The increasing pressure of scientific communications—many of which we are compelled with much reluctance wholly to omit—has suggested to us the necessity of placing much of our miscellaneous correspondence in smaller type; and in order that none of our subscribers may pass without an acknowledgment of their letter, or an answer to their queries, we propose also to transpose our Correspondents column to the last page, using for it, likewise, a smaller and neater type. To meet the additional expense we are in this and other directions incurring in the improvement of The Medical Times, *the future numbers of this journal, after this day, will be charged with an additional penny. Concurrent with these changes—which will only confirm any claims we may have to be the* best *of the medical journals*—The Medical Times *will still remain, as our readers know, not only the largest but the* cheapest *scientific periodical published in any part of the globe.*

THE MEDICAL TIMES.

SATURDAY, NOVEMBER 6, 1847.

THE POOR-LAW.

The meeting of the Committee of Union Surgeons, to be held to-day, will have to discharge itself of an important responsibility. The interests of two thousand gentlemen, and of the pauper sick of the empire, are placed in their hands under circumstances the most favourable to a triumphant issue: much is given them, and much will be expected.

One of the first decisions will, no doubt, be that of securing a complete tabular statement, showing the actual state of the medical payments throughout every union in the empire.

To this end, every medical officer must be

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quickly communicated with, and supplied with a form to be filled up with a detailed statement of his own case.

We consider this a most important step, for it will establish for us an argument which, both to the country and the Government, must be irresistible. But there is no concealing the fact that it implies a tolerably large expenditure, which should not be allowed to fall on the shoulders of a few. The subscription being small, there is no surgeon interested in the movement whose name should not appear in the list.

Another early decision will probably refer to the utter hopelessness of establishing a per-case system of remuneration. It is a system that will not and cannot be fairly proportioned; and would fall in a very short time, if submitted extensively to the severe test of experience. The poor, under such a system, will not receive medical relief at all, except in cases which, in *the opinion of the relieving officer*, present features making out a *primâ facie* "urgent necessity;" and thus danger to the pauper, and ultimate expense to the ratepayer, will arise from protracted illness *owing to neglect of primary symptoms*.

Again, the adjustment of the accounts between the guardians and the medical officers will be a scene of endless bickerings and constant appeal to the commissioners. Let it be added, too, that the *numbers or distance* of the cases are no proper test of the amount of remuneration which medical officers should be paid. There are also other disadvantages which may be urged by the guardians and the public. It will be suspected that the medical officer may make one case into two or three, *e. g.*, hepatic congestion, pneumonia; dropsy, consumption, &c. There may be two cases in one family, and so on *ad infinitum*. We will suggest also, with respect, that we ought to leave out of view every scheme of a sanitary nature in the first instance, and stick to the point as affecting the union medical officer, the pauper, and the rates. The committee will find work enough for themselves before pulling through with this load; and if they try to carry medical police, health of towns, or sanitary commissions, or any of the other proposals hinted at as to be connected with the Convention, they may have the strength of Hercules and not get through their difficulties.

LINCOLN'S-INN AND ST. ANDREW'S.

The evidence of Mr. Lawrence and the letter of Dr. Reid leave clear one inference: — When "*certain*" people fall out, the readers of the *Medical Times* acquire their own. Take Lawrence on his oath as to the worth of St. Andrew's, and Dr. Reid on his word as to the value of the College in Lincoln's-inn—and we have a tolerably near approximation to the truth. Both are nearly as bad as they can be, but, of the two, St. Andrew's is probably the better concern. Its rulers are not so daring in their predatory habits; and are content for their week's wages with a less amount of corporate violence. There is a want of metropolitan expansion in their unprincipledness, and, as though smitten by the characteristic caution of their race, they thimblerig with quaking consciences, and play fantastic tricks by mean-spirited halves.

Whosoever knows Lawrence, and the College of which he has been for so many years the autocrat, will make no such accusation as this against him. There is no vapid small-beer scruples or hesitations about his corporate *razzias*. No hair-splitting *bienséance*, no coward-making conscience stands between him and the heroic. Are there 10,000 members to be stripped of twenty guineas, value *not* received? Lawrence is exactly your man. Are there 10,000 members to be despoiled of a nominal corporate privilege, and external social position? Again, Lawrence is your man. Is it necessary to meet the poor despoiled victims, and, in answer to their vociferated groans, tell them to their faces—gentlemen as they are!—that they have been—and will be—(and that deservedly)—treated as a flock of geese—hissing, gabbling geese? Again, Lawrence is your man. While there are such things as a Genius of Impudence, and a Heroism of Odd-doing, who shall doubt that Lawrence and his College deserve high precedence—high footpad precedence—over Dr. Reid and his northern university?

Dr. Reid—who seems to have felt that, bad as might be his university, it was imperative on him, for decency's sake, to show that at all events it was a great deal more respectable than our College of Surgeons—tells us in his clever letter, that in the examinations held before Jan. 11, 1845, they had in their 71 candidates, forty members of Lawrence's College; and out of these forty members the university felt itself obliged to withhold its diploma from six—one of these six having been rejected by the university once before! During the present year, out of their forty-nine candidates, thirty-six were again members of Lawrence's College; and out of these thirty-six the university felt itself compelled to reject seven—nearly one in five! Now, to a certain extent, we believe Mr. Lawrence on his word—as we before said: and have no doubt that his very cheap estimate of St. Andrew's is certainly not 100 per cent. beneath its value; but, humble as are its pretensions, it would yet appear to turn up its nose at every twenty in Mr. Lawrence's hundred members! Bad as may be St. Andrew's, it is proved by statistics to be just twenty-five per cent. better than Lincoln's Inn!

Now, the members of the College have a right to some explanation here. Mr. Lawrence would raise the council and the body of fellows in social estimation; and the easier mode of doing this is unquestionably not raising the qualifications of himself and brother practitioners, but depressing that of the large body of members. Has this been his policy? Is this the explanation of that terrific facility with which of late years members have been admitted who could show the possession of the one great qualification—twenty guineas? Is this the reason that the College has now members—one in every five—unworthy of admission even to St. Andrew's? *We* ask an answer. Dr. Reid asks an answer. Perhaps, before we again address the public, Mr. Lawrence may think it worth his while to give one.

THE COLLEGE OF PHYSICIANS, AND THE GENERAL PRACTITIONERS.

"Like Eastern kings, a lazy state they keep,
And close confined in their own *College* sleep."
POPE.

It is a law of our nature, which most men discover, that whenever they have an opportunity of praising themselves, though at the expense of others, they will generally give themselves the full benefit of their own approbation. Some of the gentlemen representatives of the two corporations of Physicians and Surgeons in the metropolis gave a very striking exemplification of this law, when called to give evidence before the parliamentary committee on the Finsbury member's Medical Registration Bill. When the worthy ex-president of the College of Surgeons appeared to show cause why the bill should not pass into a law, he made use of the opportunity to speak a good word on behalf of himself and fellows. This he did at the expense of the great body of college members, whom he characterized as persons of defective general education, and with but a very limited stock of professional knowledge; that they were, in fact, only fit to occupy certain country stations, or to exercise their slender abilities upon pauper patients.

In thus speaking disrespectfully of the surgeons of Great Britain in general practice, he had only followed the example set him by the illustrious president and censors of the College of Physicians, who had previously advertised themselves as being the lights of the professional world and the salt of the earth. The evidence of these gentlemen, holding the highest official stations in the College of Physicians, we have not yet had an opportunity of placing before our readers; we shall, however, shortly do so. In order that they may be prepared for a close and serious contemplation of the statements then made, we have considered it our duty to bring before them certain portions of it now, that the justice and liberality of the Pall-mall corporation may be always had in remembrance.

The College of Physicians, through its representatives, has declared that the ordinary practitioners of medical science are persons of inferior education, whom poverty compels to enter early upon the practice of the healing art. Dr. George Burrows says—"The majority of those who enter into the profession of medicine enter into what is commonly called the lower grade of the profession; and they are persons generally of limited means: their means have not allowed them to obtain an extended education; and they just get as much medical knowledge as will enable them to fill certain public situations, such as surgeons under the poor-law, or assistant-surgeons in the navy, or they commence practice as they may. They are compelled by the necessity of the case to seek to gain a livelihood as early as possible. It must be clear, that as science extends, and as more subjects must be cultivated in order to acquire a full knowledge of medicine, a longer time is required; and it is impossible, in the present day, for any young man of twenty-one or twenty-two really to have mastered the principles of his profession. He cannot have grasped the principles of the different sciences auxiliary to medicine, and if he goes into practice at that time he becomes little more than an empirical prescriber. There are a certain proportion of clever men who avail themselves of their opportunities of observation, and afterwards become able practitioners; but you do not find that they are the men who add to the science of their profession, however skilful they may be in the treatment of disease."

These are very humiliating statements for the general practitioners, made before the members of the British House of Commons, in order that they may be circulated amongst the aristocracy of the empire, so that, if any of them should ever be compelled to seek the services of one of the plebeian practitioners, he may be received with as little consideration as a barber or butcher. But how comes it to pass that the "lowest grade of the profession" is not more highly educated at the present time? We answer most emphatically,

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through the reprehensible conduct of that college of whom Dr. Burrows was the representative before the medical-registration committee. The facts connected with the professional movement which resulted in the enactment of the Apothecaries' Bill of 1815 are not yet forgotten; and there are gentlemen still in the land of the living who are in the possession of secrets worth knowing in reference to the conduct of the corporation in Pall-mall. The sleeping Centaur was roused from the slumbers by the cry of reform sounding in the ears, and the giant put forth his strength to strangle in its birth the offspring of wisdom and liberality. Though the Apothecaries' Act was passed, it was not the measure originally proposed. Every inch of ground was disputed that was worth possessing, and it was absolutely necessary for the "Associated Surgeon-Apothecaries" to yield something if they were to gain anything.

There were two things in the Apothecaries' Bill of 1815 which prevented it from elevating general practitioners to the highest rank in the medical commonwealth: the first was a rigid enforcement of medical apprenticeship; and the second was, compelling the Company to have a court of examiners composed of certain individuals who were only to test candidates on certain subjects: and these injurious clauses were dovetailed in by the College of Physicians. There can be little doubt that this was done to keep down the general practitioners in a subordinate station; and it was scarcely anticipated that the Bill could be worked in any way to promote their welfare, either mentally or socially. If an apprenticeship of five years is to be submitted to—and there is no alternative where an individual intends to obtain the apothecaries' license—then, under ordinary circumstances, must the study of those branches of education be suspended which are of importance in disciplining and strengthening the mind. We do not mean to say that an entire abolition of the system referred to is to be desired, but we are confident that a modification of it would be infinitely beneficial—such a modification as would permit a youth so to pursue his education in classics and mathematics as to be able to pass an examination equal to that which B.A.'s are compelled to undergo for their degree. The great fault of apprenticeship is its interfering so materially with general instruction; this the College foresaw would certainly be the case; and yet it now turns round and reflects upon those whom it would not allow to enjoy the same advantages as its own members.

But another evil against which general practitioners have had to contend is connected with the constitution and functions of the Court of Examiners of the Company. We do not mean here to reflect upon those gentlemen who now compose it; but it is possible that individuals, not possessing the least particle of medical knowledge, might be placed there to certify that a candidate is fit to practise medicine and pharmacy. Non-professional individuals might constitute the society, and from these the law would require that the examiners be chosen. It has only been by the exercise of great care that the most disastrous consequences have not resulted; and we have no guarantee that at some future time, with the Registration Bill as law, possible evils may actually be realized. If, hereafter, the society should not be favoured with one sufficiently learned to translate a classic author, farewell to Latin and Greek; and if without a chemist the candidate for the certificate would perform a work of supererogation to puzzle his brains about symbols, equivalents, or decompositions; and even now his knowledge of surgery is there never tested. Whatever defects are found in the Apothecaries' Act, they are to be chiefly attributed to the opposition which the bill of 1815 experienced from the College of Physicians; and if the practitioners of medicine and surgery have become a respectable body in the eyes of the public, no thanks are due to the antiquated corporation.

If we may judge from the language of Dr. Paris, we must be led to the conclusion that the College, in endeavouring to curtail the education of surgeons in general practice, has sinned against light and knowledge; he said before the committee:—"I think that the apothecary should understand, as far as he is able, every thing that the physician knows. He has to treat the same diseases, and, therefore, it is very desirable that the apothecary should be acquainted with all the circumstances of disease, and the mode of curing it, as well as a physician. When he is called upon to treat a case, it is highly desirable that he should have all the information which can be obtained. As physicians frequently are not at hand in remote country districts, it is most important for the interest and welfare of the public that the apothecary or general practitioner should be a highly-educated man. There is no information, medically speaking, that a London physician ought to possess which ought not to be possessed by such a practitioner; but, as far as my opinion goes, I think his medical education inferior."

We perfectly agree with Dr. Paris, as regards the education of general practitioners, that it should be of the highest order; and we think that this will be best accomplished by the Government granting them immediately a charter of incorporaton—one not soiled with the defects of ancient institutions, but which will permit them to choose their own officers, regulate their own *curricula* of education, and give them that which they can scarcely now be said to possess, "a local habitation and a name." Registration alone is a mere delusion, and the general practitioner who advocates it sells his birthright for a mess of pottage. The statements made in the face of the House of Commons will not be easily obliterated from the memory of the august senators; and it ought to be the first duty of those who have been designated as "an inferior grade" to use every effort to raise themselves from their imputed degradation. Physicians blush at the idea of being booked with general practitioners, as the latter must, under the law, remain for ever second or third class passengers, with what the former would have us suppose first-class tickets. The fear is, that under these circumstances, the public would be deceived; alas! they have been long deceived by corporate pretensions and collegiate titles. What, we ask, has the College of Physicians ever done for science or mankind? Harvey it persecuted, Mason Good it despised, Armstrong it rejected; and to nearly the middle of the nineteenth century it kept at bay its own licentiates, not permitting many of them ever to aspire to the immunities and privileges which belong to fellows. It still needs reformation in order to make it an institution adapted to the spirit of the age. A new incorporation of general practitioners would be the means of infusing fresh life into the asphyxiated College; and, once fairly awake, it would endeavour to atone for past errors by zealously devoting itself to the promotion of science.

NECESSITY OF SANITARY REFORM.—THE REGISTRAR-GENERAL'S REPORT.

"Et causa quoque æstimatio sæpe morbum solvit."—Cels.

The Registrar-General has just published his quarterly return of the health and mortality in 117 districts in England; and the document must be viewed by the medical profession at the present time with considerable interest. The cholera has entered Europe, and is pursuing the identical course that it took when it visited this country in 1831. Its arrival here can, therefore, be no matter for speculation, and it only remains for those who are invested with authority, to use those means which science has shown to be most effectual in arresting its progress, or mitigating its virulence. Military cordons and quarantine establishments have been proved by experience to be utterly futile in checking its advance, and civilized Governments are now beginning to perceive that their only hope rests in the rigid enforcement of sanitary regulations.

In the last visitation of the cholera, the densely-populated cities of this country suffered most severely from its influence, and, while no class was exempt, the poor, addicted to intemperance, and living amidst dirt and filth, were cut down on the right hand and on the left. From the reports which have reached us, we learn that victims of the same class are now especially selected, as in the previous epidemic; and when it reaches this densely-inhabited metropolis, like a destroying angel, it will take its stand especially over those districts where morality is at a low ebb and cleanliness little regarded.

The quarterly return informs us, that while there has been a slight improvement in the health of the country, London still remains as sickly as ever; and the high rate of mortality which prevails is ascribed principally to "the crowding, the want of water, decaying animal and vegetable matters unremoved, and the inefficiency of the sewers, which neither carry off the solid, liquid, or gaseous matters, poured into them or generated within them every day." It is evident, therefore, that the increased amount of disease and death, which at the present time prevails in the metropolis, is to be attributed to causes over which the inhabitants have entire control. They can, at will, increase or diminish the amount of disease amongst them; and they may be said, in no small degree, to hold their fate in their own hands. This great fact has been repeatedly forced upon public attention by the members of the medical profession; but, hitherto, such has been the apathy of the people to make efforts for their own safety, that the reforms which enlightened men have proposed to render people less obnoxious to the influence of epidemics have experienced obstructions of unusual extent and obstinacy. Medical men, from their extensive intercourse with the poor, are better acquainted with their habits and prejudices than any other class of society; and experience has taught them that sanitary reform has made little progress in consequence of the humbler ranks being infatuated with a love of filth to the utter dislike of that which is its opposite. Born and bred in the midst of uncleanliness, they are so habituated to it that it never for a moment attracts their attention; while those more favoured by nature and education take little notice of evils which occasion them little present inconvenience. The middle and upper classes of society have given but little attention, hitherto, to the hard fate of those who live and die in the midst of an atmosphere perpetually exercising an injurious in-

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fluence on their constitutions; and a strange credulity possesses them when they are told of the squalid misery of their poverty-stricken neighbours, and the horrors of the charnel-house.

Yet, hidden from the view of the teeming population of this great city, there are vaults crowded with bodies in all the different stages of decomposition—sewers abounding with filth, which, as stagnant and as abominable as the fabled Acheron, send forth their pestiferous exhalations to hurry out of life human beings, without regard to sex, age, or condition. Dr. Gavin, in a lecture before the Mechanics' Institute at Hackney, and which has been recently published, says, "It is impossible to read the accounts contained in the reports of the commissioners of the health of towns of the filthy and horrible state in which the houses and streets in the poorer localities are represented to exist, without being struck with amazement—that, in a town professing to be the centre of civilization, and the mightiest in the world, such abominations as everywhere present themselves should be allowed to exist even for a day." "In company with Mr. Taylor, I visited Lamb's Conduit-fields, after long-continued hot weather. In a place of about 300 square feet, being covered with putrid water, I found that all the space enclosed between a boarding on either side of the Eastern Counties Railway, and extending from part of arch No. 91 and the half of arch No. 92, up to the end of arch 98, a distance of 230 or 250 feet, and from 40 to 60 feet in width, was one enormous ditch, or stagnant lake of thickened putrefying matter. In this Pandora's box, dead cats and dogs were profusely scattered, exhibiting every stage of disgusting decomposition. Leading into this lake was a foul streamlet, very slowly flowing, and from it another, which widened and expanded into a large ditch, before it disappeared in the open end of a sewer. Bubbles of carburetted and sulphuretted hydrogen gases, and every pestilential exhalation resulting from putrefaction, were being most abundantly given off from the ditches and the lake. The ripples on the surface of the water occasioned by a shower of rain are not more numerous than were those produced by the bursting of the bubbles of these pestilential gases, which were about to produce disease and death. The construction of the railway has diminished the extent of the lake, but it has *concentrated* the evil. Now, the concentration of such *foci* of disease has been proved to be deleterious in a geometrically increasing ratio. What, therefore, must be the effect of this lake of putrescency on the health and lives of those who shall inhabit the houses rapidly springing up all around it? A row of twenty-two new houses, of two flats, with cesspools in front, are being built parallel to, and within ten ten feet of, this most disgusting and degrading scene, which is an abomination, dangerous even to a casual inspector."

Not far from this foul lake is a place called Newton's Rents, consisting of six houses, held of the manor of Stepney, and each let for one shilling a week. The houses consist of one room, with no back entrance whatever, except those on the left side, which have about two square feet, the breadth of the house. "At one end of these six back yards are open privies; at the other end is a dust-bin. At the further end of this court is a large dust-bin, filled with all sorts of garbage, filth, and refuse. On the right side is a most filthy double open privy, in a state of decay, with ordure strewed all around. On the left are two open privies, in so beastly a state that they are utterly unfit for use. The court, which is about ten feet wide, has a grating in the centre, leading to a drain, which is always stopped up; there is, consequently, in dry weather a little lake of most putrid mud and fluid filth; and in wet weather the court is a foul marsh. The scavenger never enters this court; and the inhabitants never attempt to cleanse it. There is no water laid on in this court; and to my inquiries as to how they obtained water, it was replied, that they 'begged, borrowed, or stole it.'"

The existence of such things is a disgrace to the parish of Stepney; and there is no doubt the inhabitants pay pretty dearly, in the shape of rates, for the sick poor, of whom there is constantly a large number on the books. Here the cholera formerly committed dreadful havoc, and in the churchyard a particular space was laid out for the victims, and they were buried in trenches. The parochial officers should now begin to prepare fresh ground for the numbers who will doubtless fall a prey to the plague: for if the work of reformation were to be commenced immediately, it could not be completed in sufficient time to effectually check the Eastern scourge.

The burying-grounds of the metropolis are also in a most disgraceful condition. There is scarcely a churchyard that is not saturated with animal matter, and graves cannot be dug without chopping through coffins and dead bodies. The vaults, also, are crammed full, many of them; and it is required very frequently to take out some of the bodies which have been longest placed there, and they are then put into some deep hole, dug expressly for the purpose. The public know not a tithe of the brutalizing transactions which take place in the churchyards of London, though they occasionally hear of doings at which humanity shudders. Attention has been recently directed to the condition of the dead buried under Enon Chapel, Clement's-lane, Strand. Mr. G. A. Walker, and other members of the Metropolitan Society for the Abolition of Burials in Cities and Towns, visited this place a short time ago. The trustees procured lights, and accompanied the gentlemen into a cellar, fifty-nine feet by twenty-nine, and less than five feet high, under the chapel. Here, on all sides, lay human remains, and broken coffins were scattered in confused heaps. At the extreme end were seventy or eighty empty coffins. To the right were several, in which lay half-decomposed carcases, and the whole cellar was crammed with bodies under the surface, which was not a foot deep. This cellar was only separated from the chapel by a boarded floor, the joints not being protected by lath and plaster. This horrible charnel-house is in a most densely-populated neighbourhood, and within fifty yards of the most crowded thoroughfare in the City.

That the improvement of the sanitary condition of large towns will not only promote the health, but also the morals, of the people, should stimulate the members of the medical profession to increased exertion to accomplish it. They have hitherto laboured apparently in vain; ignorance and avarice have resisted to their utmost, but they are not much longer to be successful. The cholera may work reform in a few months which, without its advent, would have taken years to accomplish; then, with clean and well-ventilated cities, the Registrar-General's report will very seldom tell of thousands prematurely hurried to the grave by causes which it is in the power of man to annihilate.

CONVENTION OF POOR-LAW UNION OFFICERS.

Owing to the shortness of the time allowed last week for preparing our full report of the Convention, some inaccuracies occurred. The following gentlemen form the committee:—

Jas. Heygate, M.D., F.R.S., President of the Provincial Medical and Surgical Association.
John Burton, M.D., Walsall.
T. Hodgkin, M.D., London.
G. J. Guthrie, Esq., London.
Ed. Daniell, Esq., Newport Pagnell.
T. Martin, Esq., Reigate.
J. A. Pearson, Esq., Woolton.
A. Ebsworth, Esq., Bulwell.
H. W. Livett, Esq., Wells.
R. T. Tasker, Esq., Melbourne.
W. Cantrell, Esq., Wirksworth.
T. H. Smith, Esq., St. Mary Cray.
G. Stedman, Esq., Guildford.
G. C. Dale, Esq., Tower Hamlets.
J. Liddle, Esq., London.
E. White, Esq., London.
C. F. Lord, Esq.
G. Ross, Esq.

The dinner should have been reported as having taken place at the *Craven*—not at the Crown—Hotel.

At a meeting of medical officers of unions, held at Cambridge on Monday, Oct. 25, the following resolutions were unanimously agreed to:—

1st. That, in the opinion of this meeting, the public services of medical men are neither properly understood nor duly appreciated, and the award made to them is on a scale wholly incommensurate with the amount and the importance of the duties they have to perform. That the smallness of the stipends now awarded makes it clear that the medical relief of the poor falls, not on the board of guardians, but, very unjustly, on the hard-worked medical officers.

2nd. That as it would be useless, and only productive of ill feeling, to apply for a remedy to our local boards, this meeting considers the poor-law commissioners and the Secretary of State for the Home Department the proper quarters in which to make known the grievance, and to seek a remedy; and that a memorial be presented to them, setting forth the inequality and injustice of the present state of professional remuneration, and requesting that some fixed principle be laid down, by which more adequate salaries may be regulated; and that this memorial be signed by the whole body of poor-law medical officers.

3rd. That copies of the returns furnished to this meeting by the several medical officers be forwarded to the poor-law commissioners, with the view of inducing them, at the earliest possible period, to remove the grievances under which the medical officers of the different unions are now suffering.

4th. That this meeting is of opinion that a commission (a moiety consisting of medical men acquainted with poor-law-union practice) should be issued by Government, to inquire into the subject of the duties and remuneration of medical officers.

5th. That this meeting condemns the exclusion of burns, scalds, and other long-protracted and dangerous surgical cases from article 177 of the present poor-law regulations; and they are of opinion that the article 181 should have been more defined and made imperative.

6th. That this meeting is of opinion that the present fees allowed for vaccination in the different unions are so low as to render the Vaccination Extension Act almost a nullity; and that no fee less than two shillings and sixpence will cause the act to be carried out in the spirit in which the Legislature intended.

7th. That this meeting unanimously request Mr. Ramsey to attend the Convention as our delegate to present these resolutions.

(Signed)
Charles Newby, Medical Officer of the Cambridge Union.

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John Prince, do., Linton Union.
Francis C. Howard, do., Linton Union.
Allen Ramsey, do., Chesterton Union.
C. P. Daniel, do., St. Ives Union.
Charles J. Edmonds, do., St. Ives Union.
Arthur W. Thurnall, do., Chesterton Union.
Thomas Green, do., Chesterton Union.
Frederick R. Hitch, do., Chesterton Union.
Robert Ransom, do., Cambridge Union.

Letters were also received from the following union medical officers, stating their regret at being unable to attend the meeting, but fully coinciding with the various resolutions:—

John Deighton, Medical Officer of the Cambridge Union.
G. L. Girling, do., St. Ives Union.
Robert Ellis, do., Chesterton Union.

The Balsham district of the Linton Union contains six parishes, with a population of 4000; and the medical officer of this union receives for his services the salary of £75 per annum. He is constantly employed for two hours every morning in the dispensing of medicines, and rides on an average ten miles a day, exposed to contagion of every kind. He (the medical officer) reckons that the drugs consumed in the course of twelve months for his union patients only amounts to £30, and the expense of keeping an extra horse to £25; this leaves him £20 per annum for his labours—being one shilling and a fraction only per day.

The medical officer of the Chesterton Union-house, and parish of Chesterton, the house capable of containing 300, and the parish a population of 2000, receives the salary of £42 for his services. Drugs, &c., for his paupers alone cost £20 per annum.

The medical officer of the first district of the Cambridge Union, which contains a population of about 14,000, receives at the present time a salary of £90 per annum. The salary was formerly only £75 per annum, but has lately been increased £15 per annum. The number of cases attended from Christmas to Lady Day, 1847, was 444, and the number of attendances upon the patients was 2250.

The following is the report from the medical officer of the second district of the Cambridge Union, which contains nine parishes, with a population of 12,000. The salary at the present time is £85 per annum, formerly being £75 per annum. The total number of paupers attended in the Cambridge Union in the year 1838 was 1027. The salary of the medical officers (there being only two at that time) was £100 each. It was afterwards thought necessary to have a third medical officer to attend to the union-house alone, his salary being £50 per annum. To make up which sum of £50, £25 was deducted from each of the district officers' salaries. In the year 1846, the gross number of pauper patients attended in the two districts was 2137; being more than double that of 1838, when the house was included, the medical officers at that time receiving the reduced salary of £75 per annum.

The great increase of medicines and attendances required induced the medical officers to lay these facts before the board of guardians. The subject was for more than three hours warmly discussed; and what was the result? The salaries were increased: the first district, £15; second district, £10; and the house, £10 per annum. It was proposed by one guardian and seconded by another, that the salaries be increased one farden (meaning, it is supposed, one farthing) per annum. The amounts of increase in the salaries were carried only by a majority of two. At the next board meeting the same guardians who, at the previous meeting, had proposed that the salaries be increased one farden per annum, gave notice that they should, next board day, move that the increase of salary be altogether rescinded. The number of visits paid at the residences of the patients in the first quarter, 1837, was 2301; the number of attendances at surgery, 500. The weekly number of medicines dispensed was as under:—60 mixtures, 108 pills, 6 powders, 5 lotions, 5 liniments; making altogether in one year, taking this as the average, 3068 mixtures, 5316 pills, 312 powders, 260 lotions, 260 liniments; and for this the total amount of salary was £75. This sum reduced to numbers gives 1¼d. and a fraction for each visit and requisite medicines. Medical relief is given by the relieving officers to parties earning from £1 to £1. 10s. per week, and this is in some instances sanctioned by the board.

Surely these remarks sufficiently prove that the remuneration of union medical officers should no longer remain in the hands of boards of guardians, but be vested in those of Government, when the medical men might be fairly remunerated, and the poor reap the benefit in the attendance.

Nantwich, Cheshire, Oct. 26.

At a meeting of the medical officers of the Nantwich Union, called by circular, to consider the present movement among the poor-law medical officers, and co-operate for the amelioration of poor-law medical relief, it was this day resolved—

1st. That the medical officers in the said union feel that a change in the present system is required: that the remuneration is inadequate.

2nd. That, under the present system, there is in some cases an unequal division of salaries; the adjustment in certain cases having been made upon false premises; regard having been had to population only, and not to population and extent of district.

3rd. That in a large but thinly populated district the medical officer is, under those circumstances, most inadequately remunerated, much of his time being required, and horse expenses unavoidable.

4th. That the only equitable mode of remunerating the medical officers is by taking extent of district, together with population, into the elements of computation, and allowing horse expenses.

5th. That the vaccination fee, when fixed at one shilling for each successful case, is too low.

6th. That the remuneration of ten shillings for labours (in ordinary cases) is too small, when the board of guardians have passed a by-law, making no difference for the distance of the patient. That, while ten shillings may be received as the minimum remuneration, there should be an increasing scale of fees, proportioned to the distance of the patient from the residence of the medical officer.

(Signed) Thomas Williamson.
William Walley.
David P. Thomson, M.D., Medical Officer for the Wrenbury District.
James H. Rowcliffe.
J. K. Slater.
John Turnelow.

Oswestry, Oct. 25.

Gentlemen,—We, the undersigned, surgeons of the Oswestry Union, desire to express our heartfelt concurrence in the objects of the meeting of union surgeons, to be held on the 27th instant.

We are satisfied that no improved remuneration for professional services is to be expected from the board of guardians, who, as ratepayers, are more interested in keeping down any expenditure than in improving the efficiency of the establishment, and embracing the comforts and well-being of the poor under their control.

We beg to express our readiness to co-operate with those gentlemen who attend the meeting in carrying out any plan or resolutions that may be determined upon for the amelioration of the interest of the profession, and for the general benefit of the sick poor.

(Signed) Peplor Cartwright.
John Wynne.
William Griffith.
R. Perkins.

At a meeting of the medical officers of the Ross Union, held on Saturday, Oct. 23, 1847, it was resolved—"That this meeting, appreciating the present inadequate rate of remuneration paid to the medical officers of the poor-law unions, and heartily concurring in the objects for the attainment of which a Convention of 'Union Surgeons' is about to be held in London, pledges itself to support the furtherance of those objects to the best of its power and ability."

(Signed)
C. E. Thomson, District No 1.
Edmund Jones, M.D., District No. 2.
W. Symonds Rootes, M.D., District No. 3.
Abraham T. Willmott, District No. 4.

In the Great Shelford district of the Chesterton Union, containing nine parishes, with a population of 5000, the medical officer, Mr. Ramsey, receives for his services the sum of £55—one of the parishes distant five miles from his residence. During the last twelvemonths he has attended 309 cases, nearly one-third of which cases (typhus) extending over periods varying from a month to three months, and requiring constant attendance. Cost for drugs and horse expenses, being compelled to keep one for union practice, £40; leaving £15 for the trouble of dispensing medicines and attendance upon the sick—not labourer's wages, for it does not amount to one shilling per diem, or even one shilling per case. During the prevalence of typhus fever, the board of guardians, after having been memorialized by the respectable inhabitants of one of the parishes, agreed that a gratuity of ten pounds should be given; but that ten pounds was raised by a subscription from three of the parishes in his district, and not paid by the board. The other officers of the Chesterton Union have an equal amount of labour, and receive the same salary each. Vaccination is paid for at 1s. per case; in an adjoining union, 2s. per case is paid; in others, 2s. 6d.

WALSALL UNION.

At a meeting of the union medical officers and others, medical practitioners within the union of Walsall, held at Walsall, on Monday, 25th October, 1847;

Present—
Francis P. Palmer, Surgeon, Walsall.
John H. Thornhill, M.D., Darlaston.
David S. Moore, M.D., Walsall Burgh Deal.
George H. Whympe, M.D., Bloxwell Deal.
John F. Hulbert, Surgeon, Walsall.
John Burton, M.D., Walsall Workhouse.

And apologies were received from—
H. W. Hare, M.D., Aldridge.
Chas. Somerville, Surgeon, Bloxwell.

Francis P. Palmer in the Chair;

it was resolved unanimously,

1st. That it is the opinion of this meeting that the present mode of payment, and the present amount of the salaries of the union medical officers of England, are incorrect in principle, unjust to the medical officers, ruinous of any attempt to carry out an effective system of medical relief to the poor; and, in consequence of the defects in the system of medical relief therefrom arising, it is oppressive to the poor, and ultimately expensive to the ratepayers.

Moved by Dr. Burton, seconded by Mr. Thornhill,

2nd. That the defects of the present system of payment for medical relief are—1. It is speculative, and not proportionate to the amount of qualification required or work done. 2. It is inadequate, under the most favourable circumstances known to this meeting, to remunerate the medical officer for even a meagre attendance upon the sick poor, and entails a considerable pecuniary loss on those who give that abundant attendance, and that quality and selection of medicine, most appropriate for the successful treatment of disease in any class of society, and which is usually considered to be indispensable amongst the wealthy and independent classes. 3. The inability of boards of guardians and the commissioners, from the very nature of the medical officer's duties, to form any accurate judgment of their extent and proper performance, and conse-

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quently to judge correctly as to the amount of the medical officer's expenses and trouble, or of the salary he ought to have. 4. It places the health of the pauper in one scale, the interest of the medical officer being in the other, and therefore in many cases it makes it better and cheaper for the medical officer, as such, that the pauper should die than that he should live, that he should become infirm or permanently disabled than that he should be cured and become a useful member of society. 5. It places the medical officer, the nature of whose services renders him, if not the most important, at least a very principal, officer in the union economy, subordinate and subject in such a measure to the relieving officers as often entails upon him the performance of the duties of the latter.

Moved by Mr. Moore, seconded by Mr. Whympe,

3rd. That, for these and several other reasons, this meeting is of opinion that the present amount of salaries of medical officers and their mode of payment ought to be altered at once for a system acknowledging as its basis that nothing short of a full and proper care of the sick pauper will satisfy his just claims as acknowledged by the laws of England; and that nothing can, without a remunerating payment to the union medical officer (and an admission that his importance in the union economy entitles him to rank high in the opinion of the commissioners and guardians, and to enjoy their confidence in all matters appertaining to his department in the union), ensure such proper care.

Moved by Mr. Thornhill, seconded by Mr. Hulbert,

4th. That, considering the difficulties surrounding a system of payment per case, and especially that such a mode would in all probability limit the amount and alter the nature of medical relief to the poor, this meeting is of opinion that, instead of that mode, one equally just and less objectionable might be adopted, because a reference to the registers of sickness and mortality in the several unions since 1837 would enable one to form a correct idea of the annual amount and nature of the work done; and from that might be deduced the annual amount of salary to be fixed in each district, workhouse, or union, as the case may be, as the salary to be paid thenceforth in that district, workhouse, or union, until, by new averages taken at stated periods, it could be shown that the salary was disproportionate to the duties.

Moved by Dr. Burton, seconded by Mr. Moore,

5th. That, if the above mode of calculating the annual amount of salary of the medical officer is adopted, it would be better to make that amount liberal enough to suffice to remunerate every medical service likely to be required, than, as at present, to have a supplementary table of fees, which, imperfect as it is, rather serves to show the conviction, on the part of those who offer them, that the medical salaries are inadequate than to answer the purpose for which they were said to be intended. But if, for the reasons stated by the commissioners, it is thought desirable to continue such supplemental table of fees, then this meeting is of opinion that such a table should be arranged as would embrace all the cases which are likely to require a prompt attendance, unusual exercise of surgical skill and energy, or to involve the medical officer in an unusually long or expensive attendance; and that, in order that these fees may bear some proportion to the relative importance of the accidents and operations for which they are given, this meeting is of opinion that they should be fixed by the Councils of the College of Surgeons and Society of Apothecaries in London, or a committee formed of members of those bodies.

Moved by Mr. Thornhill, seconded by Mr. Whympe,

6th. That the system adopted in this and other unions, of affording childbed relief to the poor—viz., that of allowing small sums of money to the applicants for such relief, instead of medical orders to the medical officer—is illegal, and a very great evil, in so far as that such a system is eminently calculated to defraud the medical officer, and to place the parturient pauper in a very dangerous situation, by subjecting her to the necessity of calling in unskilful persons to her assistance; and is, moreover, not economical, because it gives rise to that order of midwifery cases which involve long attendance and the exercise of great skill, and infer the larger amount of fee allowed; therefore, and consequently, this evil should be summarily determined.

Moved by Mr. Moore, seconded by Mr. Thornhill,

7th. That, as a means needful to the end supposed to be in view—namely, the proper relief of the poor, this meeting is of opinion that all medical officers should be allowed to give orders for certain extra articles of diet required in cases of sickness or emergency, and that such orders should be made payable by the proper officer, and should be charged in his quarterly account in such a manner that the parties supplying such articles on medical officers' orders should have no difficulty in being paid quarterly.

Moved by Dr. Burton, seconded by Mr. Hulbert,

8th. That, with these views of medical relief, and its evils, as affecting the interest of the medical officer, the pauper, and the ratepayers, the present meeting feel it to be a duty they owe to themselves and the public to send a delegate to the Convention of Union Medical Officers to be held in London on Wednesday, the 27th instant, in order that they may co-operate with their professional brethren in bringing the said evils under the notice of her Majesty's advisers, and praying them that they would, in some efficient and summary manner, remedy the said evils.

Moved by Mr. Thornhill, seconded by Mr. Whympe,

9th. For this purpose this meeting does hereby appoint Dr. Burton as their delegate and representative at such Convention, and authorizes him to vote and act there in such manner and way as to him may seem most fit to carry out the objects of the said Convention.

ASHTON-UNDER-LYNE UNION.

At a meeting of the following gentlemen—Dr. Lees, Mr. Cooke, Mr. Wood, Mr. Pomfret, Mr. Malalieu, and Mr. Massey, medical officers of the Ashton-under-Lyne Union—on the 25th October, Mr. Cooke in the chair,

Moved by Dr. Lees, and seconded by Mr. Pomfret,

1st. That this meeting approves of the Convention of Poor-law Medical Officers to be held in London on the 27th inst., and assures the Convention of its cordial support.

Moved by Mr. Malalieu, and seconded by Mr. Wood,

2nd. That a copy of the above resolution be forwarded to T. Piers Healey, Esq., Hon. Secretary to the Convention.

At a meeting of the medical officers of the Saffron Walden Union, held at the union-house, on the 26th October, it was unanimously resolved,

"That this meeting cordially agrees with the objects proposed for the Convention's consideration, and, so far as in the power of its members, will endeavour to aid those objects."

BELPER, BAKEWELL, AND ASHBOURNE UNIONS.

At a meeting of the medical officers of the Belper, Bakewell, and Ashbourne Unions, held at the Red Lion Inn, Wirksworth, on the 20th October, Wm. Cantrell, Esq., in the chair,

It was proposed by Wm. H. Fletcher, Esq., and seconded by John Adams, Esq.,

"That, considering the present mode of remunerating the services of union medical officers to be unsatisfactory and, in most cases, inadequate, we highly approve of the general meeting about to be held in London, and that Mr. Cantrell do attend such meeting to represent our opinions."

PRESCOT UNION.

[To the Editor of the Medical Times.]

SIR,—I have been directed by the board of guardians of this union to forward to you the enclosed letter, which has been addressed to them by Mr. Tyrer, one of their relieving officers, in consequence of a letter which appeared in your paper of the 4th ult., signed "J. Armitage Pearson," and followed by some remarks of your own thereupon. I send also some other papers in verification of the statements made in Mr. Tyrer's letter; and have to request that you will either give publicity in your columns to the letter itself, or, by such other means as you may think proper, make it known to your readers, that the statements made in Mr. Pearson's letter relative to the case of George Foster are totally without foundation.

I am, Sir, your obedient servant,

J. HEYES,

Clerk to the Board of Guardians of the Prescot Union.

Prescot, Lancashire, Oct. 22.

GENTLEMEN,—On Thursday last my attention was called to a letter published in the London *Medical Times* of the 4th ult., signed "J. Armitage Pearson," in which that gentleman seriously and most unjustly reflects on your character as a board, and by implication on myself, as your officer. Knowing the ill odour of Woolton affairs, from the too frequent occurrence of disagreeable circumstances there, nothing but a strong sense of duty could have induced me to notice this communication, the facts being so decidedly contrary to all the allegations made by Mr. Pearson. It is to me matter of much surprise that he could publish such an account when the real facts were so accessible.

Not to occupy too much time, I will shortly state the circumstances as they arose. The "poor man" referred to is George Foster, an Irishman, for about twenty years resident in Much Woolton, and regularly in the employ of Mr. James Gore, builder, at 16s. per week. He has a pony, an ass, and two carts, with which some of his family cart coals and clothes to Liverpool, and since March last they have received upwards of £4 for removing fever patients to the workhouse. His family, at the time referred to, consisted of himself, wife, and eight children, the daughter, Catherine, seventeen, attending those who were sick.

On the 26th July, at half-past six in the morning, I received (No. 1) a note (if it may be called one) from Mr. Pearson, requesting me to attend to this family. Not considering it a case for my notice, my first thought was to pay no regard to it. I, however, resolved to provide for all contingencies, and wrote (No. 2) to Mr. Rushton, by messenger, the same morning, enclosing 2s. 6d. for Foster, as owing to him for conveying paupers. On my visiting Woolton the following Wednesday, I found that Mr. Rushton had not given this, having learned that Mr. Gore's men had collected 35s. 9d. the previous Saturday evening, and handed it over to the family. During the same week ending July 24, he received 15s. from myself for carting, and 10s. from his club—total £3. 9s. On Wednesday, the 28th, the daughter, in charge of the family, came to my office at Woolton for relief. I went to visit the family, and found Foster convalescent, and one of the boys able to go with the cart. Telling Foster he did not need to be a pauper, and believing that 2s. 6d. was too little for conveying the fever patients, I gave him an extra 7s. 6d., which the board allowed, and have paid 3s. since for each journey. On Wednesday, Aug 4, I received from Mr. Pearson two papers (Nos. 3 and 4) which I laid before the board on the Thursday following. I heard no more of the case, and saw the man at work soon after. To have placed him on the relief list would have been grossly unjust to a large class of poorer ratepayers around him.

How far Mr. Pearson is right in using the term, "penniless, and in great distress and

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actual want, without a morsel of food in the house;" "to be shocked at their destitution;" and, again, to "declare that they were starving"—to speak of all this, coupled with your treatment of it, as a "shameful fact"—I leave it for you to judge; but when the character of a public board and its officer is concerned, it is surely becoming to take care that nothing bearing the semblance of falsehood should creep into published statements. This letter concludes with a general charge of cruelty on your part, most annoying to the clergy, &c. I will answer for it, that in Woolton the ratepayers in general have no such opinion. The benevolence of the Woolton gentry is proverbial. To this is attributable the congregating together of large masses of Irish poor in houses insufficient for their accommodation; the consequent existence and spread of infectious disease, numerous deaths, and more than a treble call on the ratepayers; and it behoves your board in its public capacity, acting on wise principles in giving relief, to protect the ratepayers against undue burdens, by checking that tendency to eleemosynary dependence which creates idleness, paralysis, accretion, and encourages instead of extirpating pauperism. If needful, there are more facts and evidence to prove Mr. Pearson's statement to be a calumny on your board, falling more heavily on the guardians for the township, and myself, as having advised the refusal of relief.

I would recommend that three of your board unconnected with the locality be deputed to investigate this affair, if needful; and I am content to abide by their decision.

I am, Gentlemen, your most obedient servant,

THOMAS TYRER.

The Board of Guardians, Prescot Union.

Prescot, Oct 21.

(No. 1.)

MR. TYRER,—I request you to attend to and relieve George Foster, wife, and family, ill of typhus fever, living in Rose-street, Woolton.

J. ARMITAGE PEARSON, Surgeon.

Monday morning, July 26.

(No. 2.)

DEAR SIR,—Some person whom I did not see brought a paper from Dr. Pearson this morning, from which it would seem that G. Foster's family are in want of something, though persons who possess ponies, carts, &c., cannot be deemed paupers. I gave them 15s. last week on account of the carting, and if I had had a bill, or been satisfied that the amount was correct, I would have paid the whole (as they say) for nine loads, £1. 2s. 6d. I will thank you, however, to give them (see paper) 7s. 6d. on my account, which I will repay you on Wednesday, and, if over paid, they must cart it out. There was no occasion to have sent to me, as, if relief was required urgently, that could be given at once.

Requesting your kind attention, I am yours respectfully, THOMAS TYRER.

Mr. Rushton, Prescot, July 26.

(Nos. 3 and 4.)

"Aug. 4.

"Mr. Tyrer, I will thank you for 4s. expended by me, viz.:—George Foster, for meat, 2s. 2d.; ditto, 2lb. of rice, 10d.; carting John Cain to workhouse, 1s.—4s."

Cannot be allowed; no proper person for relief.—J. H.

The father took his own son, and not in a cart.—J. H.

[With reference to this communication we have received from Mr. Pearson, who has been in town on the business of the Convention, the following documents]:—

Woolton-grove, July 27, 1847.

DEAR SIR,—I have the satisfaction to hand to you copies of letters addressed to the Board of Guardians of the Prescot Union, and posted this day to the chairman; and to assure you of the cordial manner in which all the parties named therein, as signing the document, united to render you this tribute of justice, and of their thanks for your valuable exertions.

I am, dear Sir, yours faithfully,

S. WOODS, Jun.

J. A. Pearson, Esq., Woolton.

Much Woolton, July 26, 1847.

GENTLEMEN,—The unhealthy and crowded state of certain tenements in this village, the accumulations of filth, and the want of drainage and ventilation, were brought some months since under the notice or inspection of the undersigned overseers and ratepayers of the township. The danger of contagious fever was but too obvious, and to avert it, in April last we called upon Mr. Pearson and other of the medical gentlemen in this place, to take the measures needful to put in force the act of Parliament for the suppression of nuisances, &c. Mr. Pearson and Mr. Rigge accordingly signed the required certificate; it was delivered to Mr. Rushton, our guardian, and by him to the board of guardians in person. No minute of your proceedings consequent thereupon was sent to Mr. Pearson, and no notice was taken of it, beyond a verbal and undefined message through the relieving officer, instead of furnishing any proper instructions which might be required—a course which appeared to us uncourteous and neglectful of the interests of this portion of the union: for policy alone would have suggested a ready compliance with our wishes, and thus might the spreading infection have been stayed, which has since sent so many fever patients to your workhouse. Two months passed on; the evils multiplied, and, conjointly with Mr. Pearson, we appealed to the bench of magistrates on the 6th instant. This led to the strong remonstrance of the bench against the apathy of your board, under which you felt aggrieved, and you summoned Mr. Pearson before you to pass on him a vote of censure.

We have now obtained some redress through the strenuous exertions of that gentleman, which have throughout been rendered at our request and with our sanction. If, therefore, censure be deserved, we ought to hear it and our purpose in addressing you is; as emphatically to protest against the vote of censure you have passed upon him, as to assure him of the high opinion we, in common with a large and influential body of our ratepayers, entertain of his services and spirited conduct in this matter.—We are, gentlemen, your most obedient servants,

(Signed)

Robert Leicester, M.A., Woolton Parsonage.
Samuel J. Phillips, Woolton Priory.
S. Woods, jun., overseer, Woolton-grove.
Edward Gibbon, jun., overseer, Woolton-hill.
J. Crosthwaite, churchwarden, Woolton-hill.
W. Lassell, Woolton-hill.
Henry Ashton, Woolton-wood.
John Lewes Phipps, Doe-park.
Robert Gill, Knotty-cross, Much Woolton.

To the Chairman and Board of Guardians of the Prescot Union.

(COPY.)

Woolton-grove, July 26, 1847.

SIR,—At the request of the subscribers to the enclosed letter I hand it to you, as chairman of the board of guardians, that you may lay it before the board at their next meeting, on Thursday, the 29th instant.

I am, Sir, your most obedient servant,

S. WOODS, Jun.

— Fyles, Esq., Windle, near St. Helen's.

(COPY.)

At a meeting of the board of guardians, held in the Town-hall, in Prescot, this 29th day of July, 1847.

Present,—Mr. Fildes, in the chair,

Mr. Ackers,	Mr. J. Johnson,
Mr. Barker,	Mr. Glover,
Mr. Roscoe,	Mr. Halsall,
Mr. E. Brown,	Mr. Longton,
Mr. Rushton,	Mr. Geo. Birchall,
Mr. Roberts,	Mr. Lawrenson;
Mr. John Birchall	

a letter was produced by the chairman, and read by the clerk, under the hands of several gentlemen in Much Woolton, remonstrating against the proceedings of the board, with regard to the Woolton nuisances. It was resolved that the subject had been sufficiently discussed, and should not be again opened.

Before the rising of the board, Mr. Roberts, guardian for Little Woolton, handed in the underwritten protest, against the determination come to by the board respecting the above-recorded remonstrance, from the gentlemen of Much Woolton:—

"Prescot, July 29, 1847.

"DEAR SIR,—Permit me most respectfully to leave in your hands my protest against the course pursued or adopted towards the memorial or remonstrances of the inhabitants of Much Woolton relative to nuisances, and addressed to the chairman of the Prescot Union.

"I remain, your obedient servant,

(Signed) "R. L. ROBERTS."

(COPY.)

"Prescot, Aug. 5. 1847.

"SIR,—By order of the board of guardians, I beg to send you on the other side copies of minutes made at their meeting on Thursday last, respecting the memorial forwarded by you,

"I am, Sir, your obedient servant,

(Signed) "JNO. HEYES,
Clerk to the Board.

"Mr. S. Woods, overseer, &c.,
Much Woolton."

I again distinctly state that the family of George Foster was penniless, in great distress and actual want, and without a morsel of food of any kind in the house; that a public subscription was made for the family by the neighbours—ladies and gentlemen; the day after I relieved them with three shillings, and I procured a poor woman to wash their clothes, for which I paid her 6s.; and this I am ready to prove.

As to the annoyance to the clergy and gentlemen, &c., I send you a copy of thanks from them for my services.

I have since obtained the three shillings from the guardian, who states he has never been repaid.

The daughter Catherine was sent twice to the workhouse, and the poor people made to pay three shillings a week for her maintenance whilst there; that receipts were given to the guardian for the three shillings, and the one shilling for carting the poor man remains unpaid by any one to me; that Thomas Tyrer tried to extort this three shillings from the wife, but I requested her not to pay it, and to say that I told her. As to facts, I challenge *not three*, but the whole board of guardians to the investigation of the truth—the truth of every word I have written; and I will appeal to the whole of Woolton as to my veracity. So much for Thomas Tyrer's statements.

I fearlessly state that there is not a gentleman in Woolton but will rejoice when the said relieving officer is removed.

JOHN ARMITAGE PEARSON.

WELLS UNION.

[To the Editor of the Medical Times.]

SIR,—Allow me a little of your valuable space for the following remarks.

The meeting of union officers, so ably presided over by Dr. Burton, on the 27th, was an extremely satisfactory one; but, because it was so, we must not relax in our exertions, and think that the matter in question is settled.

Doubtless the committee then appointed will request from every union some statistical account of medical relief. The Local Association of Union Surgeons, to which I act as secretary, will meet next week, in order to consider and determine upon the best means for obtaining the requisite information; and I purpose submitting to it, when met, a table (as under), to be filled up in

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each union by each medical officer, and sent to me, for the use of the central committee.

Thinking that our example, if known, would be followed elsewhere, and thereby the labour of the committee lessened, while our cause would be advanced, I am induced to make our proposed plan public through your means. I have filled up the enclosed table, *exempli gratiâ*, with returns of my own union.

To show the interest excited in this part of the world, I may add that our Local Association of Union Surgeons now numbers forty members, resident in fifteen unions—with two exceptions, all in Somersetshire.

Yours faithfully,

HENRY W. LIVETT.

Wells, Somerset, Nov. 2.

WELLS UNION.

Name of district or workhouse.	Character of district: town or country.	Name of medical officer.	Population of district.	Acreage.	Distance, in miles, of farthest parish from medical officer.	Annual salary.	Amount of extra fees last year.	Number of cases reported last year.	Average per case. Without extra fees.	Average per case. With extra fees.	Vaccination fee, per case.	Observations.
Wells Workhouse.	—	H. W. Livett.	Built for 300	—	¼ mile.	£40	£8 10s.	240	3s. 9d.	4s. 6d.	1s. 6d.	
No. 1 District.	Mixed: chiefly town.	H. W. Livett.	6368	11,138	6½	£55	£15	405	2s. 8d.	3s. 4½d.	1s. 6d.	Salary raised lately; formerly £40.
No. 2 District.	Mixed.	Thos. Purnell.	4856	24,470	6½	£70	£10	361	2s10¼d.	4s. 5d.	1s. 6d.	Salary raised lately; formerly £60.
No. 3 District.	Mixed.	F. B. Stradling.	9341	31,512	6	£90	No return.				1s. 6d.	This district is now divided.

LETTER FROM A DOCTOR'S BOY.

[To the Editor of the Medical Times.]

HONOURED SIR,—Although I am but a doctor's boy, yet am I a constant reader of your delightful paper. You see, Sir, master takes in your valuable periodical every week, and while he and the dispenser are up at dinner I have an opportunity of reading it. Your leaders for the last few weeks back have filled me with admiration. I can plainly see, Sir, that you are the poor-law doctors' best friend, and that you are trying your utmost to improve their condition, and get them more money for their labour. It is your great benevolence towards them that has encouraged me to write you this letter, which, if it meet with your approbation, I should like to see inserted in an early number of the *Times* for the good of myself and that of my numerous brethren who carry out physic. I feel certain that a few words from you would greatly aid our cause, and gain us an increase of pay. I assure you, Sir, our wages are very low, and that we have to work a great many hours for our money. We have to take out physic at all hours, and in all weathers. Why, Sir, the other evening, after I had been my rounds and shut up shop, I was walking towards home very composedly, when, who should I meet, but a professional brother walking slowly along with his basket on his arm; so I says to him, "Squirts"—(you see, Sir, we always greet each other by that title)—"Squirts," says I, "where are you going to at this unseasonable hour of the night?" With that he began telling me a long story about his only having 4s. a week, and that he had then a good deal of medicine to take out before he would be allowed to go home. I advised him to walk fast and to count his steps, by which means he would keep his head employed as well as his feet, and so make the journey appear much shorter. You see, Sir, what a useful class of beings we are, and yet how shamefully we are imposed upon.

Should you consider this letter worthy a place in your valuable columns, you would be the means of greatly improving our social position, and also of getting us an increase of wages from our hard-hearted masters.—With great respect, I subscribe myself, Sir, your very humble servant,

A HARD-WORKED AND BADLY-PAID DOCTOR'S BOY.

CHLORIDE OF LIME AND PHTHISIS.

[To the Editor of the Medical Times.]

SIR,—In "The Cyclopædia of Practical Medicine" DR. A. T. THOMPSON states, that chlorine is prophylactic and curative of phthisis, and exemplifies this statement by its effects on the labourers employed in the manufacture of chloride of lime at St. Rollox chemical works, at Glasgow; and by the assertion that consumptive invalids take lodgings in the immediate vicinity of those works, for the supposed benefit derived from the surrounding atmosphere being impregnated with chlorine. That a physician of DR. THOMPSON'S pretensions should give an opinion so contrary to what reason and analogy lead us to expect is surprising, and inclines me to suspect that he is more distinguished for verbose compilation than sound judgment.

The labourers employed in the manufacture of the chloride of lime are necessitated to fasten several thick folds of cloth over their mouths and nostrils, in order to prevent present suffocation; and when they are disengaged from work, those robust Highlanders and Irishmen are reduced to such a state of debility as to reach their dwellings with difficulty, and to be compelled to throw their exhausted bodies on bed. Inflammation of the mucous membrane of the bronchi, trachea, larynx, nasal fossæ, and eyes, affects them to a considerable degree almost habitually; and after a greater exposure to the gas than usual, which is a frequent occurrence, the inflammation is greatly increased, and sometimes requires medical treatment to abate it; the conjunctiva is then occasionally so much inflamed as to blind the workmen for a time, so that they require to be led home. The gas is diffused through the whole of the works to so great an extent as to render it almost impossible for a man whose lungs are at all diseased to work in any part of them. The gases occasionally issue from the work—notwithstanding the chimney, famed for its height, which was built a few years ago, and which is already cracked, and threatens the neighbouring inhabitants with destruction—to so great an extent as to darken the air, and to excite cough in any one who may chance to pass, however healthy the lungs may be. From the constant inhalation of the gas, phthisis and other pulmonary diseases occur frequently among the workmen, who are also exposed to the greatest vicissitudes of temperature; when engaged at work the sweat trickles from every pore—their shoes are filled with perspiration. During the intervals of labour and their return home, they are necessarily subjected to the inclemency of the weather. Who could think that men constantly subjected to those two powerful exciting causes of phthisis are unusually exempt from it?

A robust Highlander, after a short residence in Glasgow, was employed as a labourer in the works; in a few months he was seized with slight cough, which increased, was attended with slight perspiration through the night, and debility, which soon rendered him unable to work. In the hope of benefit, he returned to the place of his nativity, but no melioration followed. "*Haeret lateri lethalis arundo*," the fatal shaft had "found his manly breast.

A boy, from the province of Connaught, in Ireland, was taken by his parents from a manufactory where he enjoyed health and vigour. He went to work at the branch of the works situated at Dalmuir, on the western bank of the river Clyde, a few miles distant from Glasgow. He was shortly afterwards attacked with symptoms of phthisis pulmonalis, for which he was soon dismissed from the work. The boy, as well as his parents, correctly attributed the disease to the baneful influence of the gaseous inhalation. The disease ran its usual course. "Caetera de genere hoc (adeo sunt multa) loquarem delassare valent fabium."

With regard to Professor THOMPSON'S other statement—that consumptive persons take lodgings in the immediate neighbourhood of St. Rollox chemical works, on account of a popular opinion of the beneficial effect of the air there—though such an opinion could not be popular without being heard by me, yet I have neither heard it myself nor known any one who has. I never knew any invalid lodge in the vicinity of those works for the sake of the air; I have inquired of the oldest of the workmen who have resided in that quarter many years, and they never knew nor heard of one taking lodgings there with that intention. On the contrary, it is notorious that the universal opinion of the unwholesomeness of the atmosphere, polluted by the emanations from those works, hinders villas from being built in the adjacent rural district, and has diminished the value of those few formerly built. There is almost no house built there except for the working class employed in the factories round about. The labourers themselves consider the part of the works devoted to the manufacture of the chloride of lime to be the most unhealthy; their opinion coinciding with my own; that all the departments of St. Rollox chemical works destroy prematurely those employed in them; and that none of them shall arrive at the senile euthanasia.

The above observations, which are deduced from personal experience, unfettered by bias to theory or private interest, decide those important points in pathology and therapeutics, and may have a beneficial influence on many of the human race.

Glasgow, Oct. 19. IATROS.

CHOLERA.

[To the Editor of the Medical Times.]

SIR,—In your remarks on "Asiatic cholera" in the last number of the *Times*, you observe that, in its invasion of a locality, its procedure resembles that of the plague, "rapidly increasing its virulence till it reaches its acme, and then declining." My acquaintance with plague is too limited to authorize me to venture an opinion as to the correctness of the statement of its law of intensity implied in the above passage; but of cholera I have seen enough to justify me in asserting that it is ever most fatal on its first appearance, and gradually assumes a milder character till, at length, the constitutional disturbances caused by the morbific agency (be that what it may) are not to be distinguished from ordinary diarrhœa, colics, and general *malaise*.

The number of seizures undoubtedly do continue to increase for some time—it may be days or weeks—reach their maximum, and then diminish; but the per centage of fatal cases is, I believe, always greatest during the earlier period of the epidemic. At first, almost every patient goes out; ere long, the disease assumes a milder and more tractable form; and afterwards the ratio of recoveries continues to increase till, as I have said, the epidemic fairly wears itself out. Me-

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dical officers who are anxious to establish a cholera reputation avail themselves of this well-known law to exhibit in their returns a marvellously successful result. They continue to admit and register, as cholera cases, what their more conscientious brother officers docket under the less alarming titles of "diarrhœa," "colic," "hepatic congestion," &c. &c. But, wherever a scrupulously honest register is kept, you will find that the average mortality of the epidemic during its entire duration is one-third of the cases admitted. Nor does this result appear to be at all influenced by the treatment adopted, or the climate of the country invaded by the disease. Two recoveries to each fatal case is the ratio observed in India: it is that which Persian *hakeems* tell us follows their practice; and it is that which has obtained in the Russian army of the Caucasus. When cholera assumes the collapsed form, it is of course more fatal than when accompanied by the more distressing, but less dangerous, spasmodic symptoms. And it is easy to see why it is so.

When cholera last visited Britain, it was, I believe, in the spasmodic form. The disease which now threatens us will, I suspect, be the collapsed kind, in which neither vomiting nor purging are very marked features, the patient complaining of little inconvenience save that resulting from a fierce and insatiable thirst, but becoming, from the first, cold and pulseless, and rapidly sinking, in spite of all efforts to rouse him.

I remain, Sir, yours faithfully,
H.E.I.C.S.

Edinburgh, Oct. 20.

THE LATE MEETING.

We have barely room in the present number for a very brief allusion to the meeting of Union Medical Officers, which took place on Wednesday last, at the Hanover-square Rooms. As far as the proceedings are concerned, it is scarcely more than necessary to refer to the report which we give elsewhere. It is sufficient to say that the meeting itself was a highly satisfactory one, most respectable in its character, and, considering the time of year, the prevalence of sickness in many parts of the country, and the wide distances which a very large number of those interested had to traverse, far more numerously attended than could have been anticipated. Satisfactory, however, as was this meeting, we quite agree in the opinion that a single meeting will not do the work. That which has just been held can only be considered as breaking the way. The entire subject must now be well sifted, and the necessary information in all its branches collected and digested. Statistical facts and records such as have been already furnished by Mr. Garlick, of Halifax, and other gentlemen, must be generally sought for and obtained from all parts of the country. It will, however, be the duty of the intelligent committee appointed at the meeting to draw up instructions adapted for the attainment of the objects in view, and to suggest to the profession that course of action best calculated to bring the question to a successful termination. We have no doubt they will soon be in active operation, and earnestly do we hope that a reward, commensurate with the exertions which we feel assured they will bestow, may speedily crown their efforts.—*Provincial Medical and Surgical Journal.*

GOSSIP OF THE WEEK.

War-office, Oct. 29.—Hospital-Staff: Assist.-Surg. John Thomas Watson Bacot, from the 39th Foot, to be Assist.-Surg. to the Forces.

Naval Appointments.—Surgeons: David Lyall, to the Acheron; James Patrick (acting), to the Nerbudda.—Assistant-Surgeons: Dr. William Tasker, to the Bellerophon; W. M. Ogilvie, to the San Josef; John Cotton and R. P. Power, to the Vindictive; Thomas B. Forster and Christopher K. Ord, to the Victory.

Last week an inquest was held by Mr. W. Payne and a jury of eighteen inhabitants of St. Giles's, Cripplegate, of whom Mr. Flowers, one of the church wardens, was foreman, assembled at the Fountain Hotel, Whitecross-street, to inquire into the death of Mr. John Henry Deffell, aged seventy years, lately residing at 38, Upper Harley-street, and carrying on business as a West India merchant in Billiter-court, City.—John Richardson, assistant to Mr. Batley, chemist, of 32, Redcross-street, said, that about half-past eleven o'clock on Thursday morning, the deceased came into Mr. Batley's shop, and inquired how Mr. Batley was, and whether he was at home? Witness replied, that he was in the counting-house. The deceased said, "Oh! never mind; pray don't disturb him. I have known Mr. Batley many years; my name is Dr. Randall." He then said he wanted an ounce of hydrocyanic acid, of Scheele's strength, remarking, that before witness gave it to him he should wish to see the bottle, as the strength and qualities of the acid varied so much. Witness, feeling confident that the deceased was a medical man, reached down the bottle containing the acid. The deceased asked witness to allow him to smell it. Witness took out the stopper and remarked that the deceased would find the acid quite strong enough. At this moment the deceased knocked the stopper out of witness's hand, and, seizing the neck of the bottle, said he knew well enough what hydrocyanic acid was. Witness struggled hard to get the bottle back, on observing which the deceased gave it a sudden jerk, and in so doing scattered the acid about his face and over witness's arm and clothes. The deceased then left go of the bottle, and witness said, "My good Sir, you have done for yourself." The deceased replied hurriedly, "I wanted, I wanted," and hastened out of the shop. Witness gave an alarm, and various persons were instantly despatched in different directions to seek the deceased. In a few moments Mr. Batley's porter returned, having discovered him in a baker's shop, within a few paces distance. Witness immediately went there, taking with him some solution of ammonia, which he administered to the deceased under the direction of a medical gentleman. Witness could not say that the deceased had not swallowed some few drops of the acid, but he believed that the sprinkling over his face and inhalation of the vapour by deceased would alone have been sufficient to cause death. The deceased was perfectly collected in his manner while talking to witness in the first instance.—Mr. Edw. Jolliffe accompanied the last witness to superintend the administration of the ammonia. The deceased lived for ten minutes or a quarter of an hour, and from that circumstance witness was of opinion that very little, if any, acid had been taken internally. If there had been, the deceased could not have lived so long.—Elizabeth Barrett, shopwoman to Mrs. Henderson, baker, of Redcross-street, deposed to the fact of deceased having rushed into her mistress's shop. On doing so he immediately seized a chair and sat down. Several persons from Mr. Batley's came shortly afterwards.—Mr. Southwood, surgeon, of Fore-street, to whose surgery the deceased was removed from Mrs. Henderson's shop, said that on removing the contents of the stomach by the stomach-pump a strong smell of prussic acid was perceptible. On analyzation, however, no poison could be detected, and witness was of opinion that very little, if any, acid had been swallowed by the deceased. Witness had never heard of death resulting from the inhalation of the vapour of prussic acid, but believed that it might do so under certain circumstances.—James Alder, butler in the service of the deceased, said he last saw his master alive on Thursday morning, at half-past nine o'clock. He was then leaving Harley-street for the City, and, as was his usual habit, he remarked, "Alder, I am going." Witness had noticed the deceased to have been in a very nervous and agitated state on several occasions lately, but was not aware of any cause for it.—Mr. William Charles Simms, clerk in the service of the deceased, said he had observed a vast difference in the deceased's manner during the past few weeks, and his answers to business questions were such as frequently to excite witness's surprise. Witness was not aware of anything having occurred calculated to vex deceased's mind. He knew that deceased had a large balance in his banker's hands. The deceased was a man of very temperate and regular habits generally. Of late he had appeared completely bewildered while transacting business in his office.—Mr. George H. Deffell, son of the deceased, said his father had been particularly afflicted by the commercial embarrassments and difficulties which had prevailed for some time past. On Saturday last he remarked to witness that it was dreadful to think of the state of affairs. The failures which had occurred among the deceased's friends and neighbours distressed him very much, and he himself, of course, suffered from the general depreciation which had taken place in colonial produce. On Wednesday last witness particularly observed that he was very much changed in his manner, his strength appearing to have failed him altogether.—There being no other evidence, the coroner summed up, remarking on the melancholy nature of the case; and the jury, having consulted for a few moments, returned a verdict of "Temporary insanity."

Fever in Edinburgh.—The fever is still keeping ahead of all efforts to check it. The infirmary is crammed in every corner, and beds are bespoken before hand in anticipation of the death or convalescence of the occupants. Surgeon-square is full. The Industrial School will hold one hundred and twenty patients; it is expected to be full in a short time. The City board have seventy-four patients at their own houses, and the cry of the officials is still for more room. We have no returns of the disease from other parishes, but it is not difficult to conjecture the dismal truth. Still the epidemic increases, and no man can predict a termination to its ravages. Many in the more comfortable ranks have fallen victims; among them, the surgeon of the police establishment; but the virulence of the typhus principally exhausts itself on the industrial classes—on those who maintain themselves by the labour of their hands. This is not the first nor the second time that those who can least sustain the shock have been exposed to its dreadful violence. Year after year they have been decimated by fever. Their wives, their children, their relatives have been enfeebled or swept away. True, they have omitted no cry, and that is the most woful feature of the case. Either they must be ignorant of the poisonous influences under which they live, or they must be too demoralized to struggle against them, or they must be hopeless of the will of the state to succour them. Any of these suppositions is sufficiently deplorable. It is difficult to say whether the ignorance, or the apathy, or the distrust be the most lamentable symptom. Surely they must soon learn to feel the blush of shame, when Southwood Smith and other men, not personally exposed to their condition, stand alone and unaided by them in their efforts to better it. This silence is not endurable by a manly and intelligent people. Surely they who suffer have tongues to tell what they suffer, and that, too, with irresistible eloquence. Why should they always speak through those who have no personal experience of their circumstances? Now that fever is raging among them, how impressive would be their appeal to the Legislature! There are men among them who could draw up an infinitely better report of the deteriorating influences by which they are surrounded than could be drawn by those of a different class, and who could suggest more practical and immediate mitigations. Such a report would most assuredly have a powerful influence in hastening the enactment of sanitary measures and the increase of their own comforts. The Lord Provost might find individuals among them most serviceable in revising his own bill, and supplying him with suggestions and with information.

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THE EMIGRANT FEVER IN CANADA.—The pestilence appears to be gradually subsiding. The *Montreal Pilot* of the 15th of October says, "The health of this city remains much in the same state as it did several weeks ago. There are some cases of typhus fever among our citizens, but at the emigrant sheds the daily number of deaths is gradually decreasing, if the reports are to be relied on. The Right Rev. Dr. Power, Bishop of Toronto, died at the Palace in Toronto on the 1st instant. The disease to which his lordship fell a victim was typhus fever, contracted in the faithful and assiduous performance of his ministerial duties at the Emigrant Hospital. His funeral took place on the 5th, and was attended by an immense concourse, not only of his own flock, but of those professing other creeds, who came to pay their last tribute of respect to the esteemed and revered prelate, whose loss is universally deplored. The funeral train, it is said, extended more than half a mile. Two more ministers of the Church of England—the Rev. Mr. Morris and the Rev. Mr. Anderson—have fallen victims to the emigrant fever, contracted during their ministrations at Grosse Isle. It will be observed that the number of vessels arrived at Quebec to the 12th inst. falls short of those last year by 266, and not more than 100 are expected, which will make the deficiency for the whole year even more than that number. At the port of Montreal there is an increase to the same period in favour of this year of 33 vessels and 4417 tons. The number of emigrants arrived at Quebec up to Saturday last was 91,892, being an increase of 60,889 over the corresponding period of last year."

FEVER AND PHYSICIANS.—The Edinburgh police surgeon and one of the infirmary physicians have both been seized with typhus. Such is the overstocking of the medical profession, and the eagerness for position, that the duties of the latter office are performed gratuitously. Matters are certainly come to a strange pass, when we find gentlemen, at the end of an expensive and laborious education, daily ministering in pest-houses, where the chances of infection are a hundred to one, and all for nothing. In the military profession, the risk would not be much greater, while at the very least a drum-boy's pay would be certain. If physicians were true to themselves, such anomalies could not exist.—*Daily News.*

THE SANITARY STATE OF WESTMINSTER.—A meeting was held at the Carpenters' Arms Tavern, Pimlico, for the purpose of considering the frightful state of the streets adjacent to Buckingham Palace, in consequence of the want of every sort of sewerage or draining. Charles Lushington, Esq., M.P., took the chair amidst great cheering.—The Secretary, Mr. Portwine, said that a memorial had been sent to the commissioners of sewers, as to the frightful state of disease to which the inhabitants of the districts of William-street, Buckingham-street, Catherine-street, and part of Palace-street, were exposed by the putrid matter either lying in or passing through those localities, calling the attention of the commissioners to the astounding fact that no sewer existed within two hundred yards of the place. The memorial further called the respectful notice of the court to the fact, and prayed for their interference. To this the commissioners sent an answer by their clerk, that the memorial should have their earliest attention: an announcement that was received with cheers.—Mr. Lushington, M.P., then addressed the meeting: the delay that night had not been his, for he was there punctually at eight o'clock, but they had been waiting in hopes of the attendance of Alderman Johnson, whose advice, from his experience and great local knowledge, would have been invaluable. For himself, he could only say that all he had to offer in the cause they had met to promote, to provide for the wants of the poor in their infected dwellings, was but good will in place of substantial information.—On the motion of Captain Houghton, a memorial was agreed to be sent to the commissioners of Woods and Forests as ground landlords.—A committee was appointed to carry out the objects of the meeting, and after a vote of thanks to the chairman the assembly broke up.

NEGRO RACE EXEMPT FROM YELLOW FEVER.—Dr. Nott says that he has seen yellow fever prevail five times in Mobile, and has attended several hundred cases amongst the whites, but not a well-marked one in a pure-blooded negro, and not more than two or three in mulattoes; although there was a great number of unacclimated negroes and mulattoes in the district at the time. The smallest mixture of African blood, even though the subject be brought from a northerly state, seems to be a potent antidote against this morbid poison.

YELLOW FEVER IN NEW ORLEANS.—Letters from New Orleans inform us that the yellow fever is still raging there, and the mortality is so great that business is nearly suspended. We trust that the appearance of cold weather will entirely put a stop to this scourge.

There have been fresh accounts of yellow fever in New Orleans. The first week in September, out of 533 deaths, 427 were yellow fever; in the preceding week, out of 442 deaths, 311 were fever. In the Hôpital de la Charité, out of 445 invalids, 128 died. Several doctors have fallen victims to this scourge.

PRACTICE OF CHEMISTS.—On Tuesday an inquest was held by Mr. Mills, at the Seymour Arms, Seymour-street, Bryanstone-square, by adjournment, on the body of Emma Elizabeth Turner, aged two years, the child of a dairyman in Adam-street West. The case at first appeared to be an ordinary death from scarlatina, which was proved to be present in the house, some other children of the same family being afflicted with it; but it assumed a new feature in consequence of the assertion of Mr. Moat, a surgeon in the neighbourhood, that, on a *post-mortem* examination, he had found a considerable portion of morphia (the principle of opium) in the fluid contents of the stomach. This, involving as it did the character of a chemist named Squire, who had prescribed a powder for the child, led to the adjournment of the inquest, in order to apply further chemical tests. Mr. Theophilus Redwood, professor of chemistry to the Pharmaceutical Society, analyzed the remainder of the fluid found in the child's stomach, and found morphia present, but in such very minute portions as scarcely to be distinguishable. This opinion led to a long discussion between the two gentlemen, Mr. Redwood declaring that iodic acid was a very uncertain test of the presence of morphia if putrescence had commenced, while Mr. Moat contended that poisoning by the means of opium would, for a time, preserve the body from decomposition, and thus enable a fair test to be made by that acid. Amidst the difference of chemical opinion, the jury retired for a considerable period, and then returned a verdict, "That the child was found dead, with certain indications in the heart and brain, but whether from the effects of morphia, or from natural causes, there was not sufficient evidence before the jurors to show," accompanied with a strong expression of opinion by the jury of the danger and illegality of the practice of chemists in prescribing for ailing persons without seeing them.

SEAMOSS AS A BANDAGE FOR FRACTURES.—Cochino is a small island only a few miles distant from the island of Chiloe. Near the shore the moss is so thick that boats frequently stick so fast in it as to require great exertion to get them out. The poor inhabitants boil this seamoss and eat it. Among the people of Chiloe it occupies a most important place in surgery. When a leg or arm is broken, after being brought into a proper position, a broad layer of the moss is bound round the fractured limb. In drying, the slime causes it to adhere to the skin, and thus it forms a fast bandage which cannot be ruffled or shifted. After the lapse of a few weeks, when the bones have become firmly united, the bandage is loosened by being bathed with tepid water, and it is then easily removed. The Indians of Chiloe were acquainted long before the French surgeons with the use of the paste bandage.

PHARMACY IN CHINA.—The Emperor of China gave the following orders last May:—1. Every apothecary was to be provided with a diploma signed by three competent judges, members of the Academy of Medicince.—2. Every apothecary must have a supply of camphor and rhubarb.—3. Salts, calomel, laudanum, arsenic, and all such drugs must not be sold without a prescription from a physician or an order from a magistrate.—4. Every apothecary ought to have a sufficient quantity of ginseng-root, and to watch the growth of this plant, which is so much esteemed by the Chinese.

ADVANCE OF THE CHOLERA WESTWARD.—A letter from Kiel (Holstein) of the 23rd ult. announces the death of a peasant named Hingst, aged thirty, residing at the village of Warnau, near Preetz, from a severe attack of virulent Asiatic cholera. Nature yielded to the contest after thirty hours of the most excruciating agony.

The *Augsburg Gazette* informs us that during last month the smallpox raged fearfully at La Ville de Foix, in Ariège. An apothecary has arrived there from Augsburg to restore vaccination, finding in the precinct of Foix, on the udder of a cow, the cowpox discovered by Jenner. Also, in the commencement of the same month, there has been a great malady in Roanne, among children; by the registry the average was, that out of seventeen deaths thirteen were children under eleven years of age.

APOTHECARIES' HALL.—Gentlemen admitted members on Oct. 28: Mallalieu Taylor, John Beach, and Charles Wise Hollis.

M. le Docteur Richard des Brus has been re-elected deputy by the College of Puy.

A school for pharmacy is to be established at Algiers. The intention of this is the instruction of those whose means are very limited.

OBITUARY.—On Aug. 5, at sea, on board the steamer Cambria, from Halifax for Liverpool, aged about 50, Daniel King, Esq., M.D., Deputy Inspector of Hospitals, late of her Majesty's ship Vindictive.—On the 19th ult., of typhus fever, in the county of Tipperary, Valentine Flood, M.D., formerly of Blessington-street, Dublin.—Oct. 7, at Cashel, aged 36, of fever, Dr. C. Minchin.

MORTALITY TABLE.

For the Week ending Saturday, Oct. 30, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	945	1046
SPECIFIED CAUSES...	943	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	276	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	90	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	133	157
Diseases of the Lungs, and of the other Organs of Respiration.....	243	333
Diseases of the Heart and Blood-vessels.....	27	34
Diseases of the Stomach, Liver, and other organs of Digestion.....	79	74
Diseases of the Kidneys, &c.	11	9
Childbirth, Diseases of the Uterus, &c.	13	14
Rheumatism, Diseases of the Bones, Joints, &c. ...	12	7
Diseases of the Skin, Cellular Tissue, &c.	4	2
Old Age.....	36	65
Violence, Privation, Cold, and Intemperance.....	19	29

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No. 424. **SUMMARY.** Nov. 13.

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A COURSE OF LECTURES ON SURGERY.

BY

SAMUEL COOPER, Esq., F.R.S.,

Professor of Surgery to University College, London; Consulting Surgeon to London University Hospital, &c.

LECTURE XVII.

GENTLEMEN,—A few remarks will conclude the subject of erysipelas, which was left unfinished in the last lecture. Diffuse inflammation of the cellular tissue differs from phlegmonous erysipelas in the temperature of the part affected and the absence of heat, the skin, in fact, being colder than natural. It agrees with that form of inflammation in its tendency to suppurate: sometimes this process takes place without any redness; and in cases where the skin is inflamed such inflammation is secondary. It frequently follows the bites of venomous reptiles, as the rattlesnake; and from the cuts and pricks of dissection, and often arises from fever. It is extensive in its character, often occupying the cellular membrane of an entire limb, and sometimes shifts from one side of the body to the other. In the treatment of this disease, which is common, your plan must have reference to the exciting cause; thus, in diffuse inflammation of the texture, arising from the bites of venomous reptiles, it will be necessary to employ constitutional remedies, not called for in other cases. Where depletion is resorted to, venesection must be avoided, and leeches and cold lotions are the best applications in the early stage, and fomentations afterwards. Where abscesses have formed, you must make early and free incisions—a rule which I should say applies also to phlegmonous erysipelas; matter should never be allowed to accumulate. Blisters, as promoting an abundant discharge of serum, are valuable; and the rule given above will teach you to make an early opening.

Œdematous erysipelas is the last form of that class of diseases that I shall have to notice; it occurs chiefly in persons disposed to œdema, and attacks those parts most abounding in cellular tissue: thus, the scrotum, the labia pudendi, and the legs of dropsical persons, are frequently its seat; it causes a great accumulation of serum. The skin and subcutaneous cellular tissue swell very gradually, and wants that firmness to the touch which belongs to phlegmonous erysipelas. When you put your finger on the smooth and shining skin, it *pits*, and the hollow thus made is slowly effaced. The colour of the skin is generally a pale red with a yellowish tinge, and there is little heat or pain. In severe cases the integuments slough, the pulse is quick and irregular, typhoid symptoms are presented with vomiting and delirium, ending in death. The state of the constitution in this disease forbids any loss of blood; aperient and tonic medicines are advantageous; and the part should be fomented with a decoction of chamomile flowers, to which may be added a proportion of camphorated spirit. If suppuration render an opening necessary, it must be accomplished by making small punctures, which should be done with a very finely-pointed lancet. Incisions must be avoided: they expose the patient to great risk of gangrene.

We proceed now to consider ulcers, and the process by which they are produced. They are a class of sores met with in our hospitals, perhaps, more frequently than any other. Care will be necessary in treating of them, on account of the great variety. Ulceration is a process in which the absorbent vessels seem more prominently concerned than the arteries. John Hunter uses the terms *ulceration* and *ulcerative absorption* synonymously; and, in his philosophical way of looking at things, he regarded it as a process established to supercede the necessity of sloughing in the diseased part. He divided absorption into two kinds—*interstitial* absorption, by which the bulk of a part is diminished by the removal of the tissue in the interstices of parts which themselves remain entire; and *ulcerative absorption*, by which a chasm is formed, and not only loss of substance takes place, but a solution of continuity. Although much attention has been paid to the subject, as yet no satisfactory theory of ulceration has been arrived at. It is observed that when a part is about to ulcerate its vascularity is increased, while the lymphatics appear to be unchanged. In some experiments, instituted for the purpose of proving the increasing vascularity of ulcerating parts, an injection was made into the veins where ulceration was going on, which showed a great increase of circulation in the veins and arteries. Another similar case was taken, and the lymphatics were injected, and upon this occasion no change was observable in the action of the absorbents. Another point affecting the Hunterian doctrine is this:—If all ulceration consists in absorption, then every person who has a chancre must have constitutional affection from that chancre; whereas it is known that many have chancres and are without secondary symptoms; and where there is a bubo, it is not in the early stage of the disease, nor till granulations have formed somewhere. There may be ulceration over two-thirds of the body, and in the other parts granulation may be going on; and not till these last take place will a bubo be found. As Mr. Key says, if ulceration were a process of absorption, the bubo ought to form in the early stage of the disease. Some have conceived that the veins are alone concerned in this process; but this theory is liable to the same objection as is applicable to the one which ascribes all to the exclusive action of the absorbents.

Whatever may be the agents of absorption on this occasion, whether lymphatics or veins, or both, we may say with John Hunter, that not only must the agents of absorption be stimulated, but the tissue about to be absorbed must be put into a state to yield to their operation.

An ulcer may be defined to be a chasm produced in some part of the body on one of its external or internal surfaces, and attended with suppuration, or formation of matter. One exception appears to exist to this definition of an ulcer, with respect to ulcers of the cornea, in which we do not meet with the formation of matter. Ulcers occur, as you already know, in a great variety of forms, and they may also arise from many causes: some are acute, and others chronic; some are very painful, and others have very little pain; some are superficial, and others are deep.

The textures most exposed to the attacks of ulceration are those most highly organized: the skin and mucous membrane are consequently very liable; whereas those textures of the body where there is a lower organization are far less susceptible of ulceration, as the fibrous textures. In the cartilage covering the synovial membrane, it not unfrequently occurs, although the organisation is low; but here, as in other similar cases where it may sometimes occur, the parts are passive; the synovial membrane, at the part where it comes into contact, gets highly organized, and it is by this membrane that the cartilage is absorbed; and, as Mr. Key says, where ligaments ulcerate, they become highly organized before fibres are removed. When an ulcer is about to form in a part, signs of inflammation exhibit themselves there; redness and swelling, with a pricking or lancinating pain, are present, especially if the ulcerative absorption is of the quick kind. In many cases there is a loosening of the cuticle; a little vesicle is formed, and on its bursting a breach is seen in the subjacent surface; sometimes several small excavations join to form in large sores. Before granulation takes place, the edges of the chasm are rough, sharp, red, and often jagged. The colour of the ulcer is dirty white, or nearly yellow, the surface presenting an appearance of shreds upon it as if the destroyed parts had not been completely removed. A thin discharge takes place, often tinged with blood. While ulceration is extending itself, the margin of the skin adjoining is hot, red, and painful; but when the healing process commences, this state ceases.

The progress and extent of ulceration vary according to many circumstances, local and constitutional. With respect to the causes of ulcers, Andral refers them to acute and chronic inflammations; some morbid secretions, as pus; and a bad state of constitution. Many specific diseases, as scrofula and syphilis, show themselves in ulcers. Then many ulcers follow diseases of the bones and joints. From what has been stated you will see that the classification of ulcers must be founded upon a division into constitutional and local; but, in admitting this classification, you must understand that many ulcers, constitutional at first, arising from impaired health and other like causes, before leaving become local in their character: the state of health is improved, and the disease confined to the particular locality where the sore is situated; and so again, on the other hand, a local sore may, through changes in the state of health, become constitutional; nothing is more certain than that the state of ulcers

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fluctuates with the changes in the constitution. One day, on visiting your patient you find the part sore, red, florid, and granulations forming—in the night, fever or diarrhœa comes on, or he receives some unfavourable intelligence; you look in next day, and the florid appearance is gone, the matter is suppressed and altered in quality—it has become thin, and perhaps tinged with blood. From these circumstances it is impossible to fix definitely the character of an ulcer, except as it is in a particular state at the time. No two are precisely alike; and, indeed, as no two constitutions are alike, this is not wonderful. Besides this classification, you must remember that some ulcers are called specific, as syphilis. In venereal diseases the ulcers are first local, and afterwards become constitutional. Scrofulous and scorbutic ulcers are of course specific. You must have heard the term, *vicarious* ulcers; these are so called, because they happen in consequence of the suspension of some ordinary periodical discharge, which they in some sort supply, as the menstrual discharge. Thus, in women, the discharge will take place at the ulcer instead of the uterus. Some ulcers depend on gastric, some on uterine, derangement, and some are connected with a luco-phlegmatic or dropsical state of constitution, which circumstances you will do well to remark. It is noticed that some ulcers have a disposition to attack certain parts of the body: thus, secondary venereal sores attack the throat; callous, *chronic*, or *indolent* ulcers are found on the lower extremities; the legs are often found to have varicose veins—a condition of extreme liability to inflammation of the skin, and to ulceration. In the treatment of ulcers you must endeavour to remove the exciting cause; this part of the subject you must already understand, from the many occasions on which I have had to refer to it. The disease may, for instance, depend on the presence of dead bone, or some foreign body, the removal of which is essential to a cure. Another point in the treatment is to apply proper dressing, and endeavour, by suitable applications, to facilitate the healing process. You must also be careful to attend to whatever is wrong in the general state of the constitution. The patient may be suffering from constipation, or the gastric organs may be in a deranged state, or the uterine functions irregular in their action. No sores are more difficult to deal with than than those originating in uterine derangement, unless you attend to the exciting cause; which being done by proper medicines, you can heal the sore. I have seen many of these sores which have been kept up by irregularities of the menstrual discharge, which, when the usual means of promoting the ordinary functions of the uterus have been employed, have rapidly disappeared. Again, you must take care to give the part proper rest, and pay attention to the position, so as to promote the return of blood. In ulcers of the lower extremities you may put the patient in bed, unless such a course would on other grounds be objectionable; a good supply of fresh air, proper diet, and attention to cleanliness, are of first-rate importance. I have told you that the healthy ulcer, or simple ulcer, is known by its appearance: the granulations are small, firm, pointed, and concave; the colour is red, and the sore discharges good pus of a white or yellowish colour, and rather thick, and not too profuse. You see the edges of such a sore covered with a delicate light blue or purple semi-transparent film, on the outside of which you observe a whitish ring, showing the presence of the new cuticle; these granulations are not disposed to be too high, so as to be an impediment to cicatrization. If, however, they do after a time become too luxuriant, you will check them by means of dressing according to circumstances. There is no constitutional disturbance, but, as the appearance indicates, it is a healthy one free from any disease except ulceration itself. It is not a case requiring medicine, and the dressing should be of a simple kind; this is a rule which has been observed here with great success in simple ulcers. Some, however, will not keep in bed or in a state of rest; either their habit or temper leads them to move about, or, perhaps, business allows them no choice; you must then either fold bandages over the leg, or employ straps of adhesive plaster so as to go quite round it, and to leave a few inches to spare. By means of this bandage, the patient will find he is able to put his foot to the ground and walk about. By these means you support the veins, and also prevent the texture from undergoing that change which makes motion in other respects undesirable. Supposing you have a patient with healthy sores, and the granulations rise too high, you may reduce them by using the zinc lotion, or touch them with nitrate of silver, and afterwards apply lint over the part touched; but, if you employ nitrate of silver or sulphate of copper, you must remember not to touch the transparent blue film on the edge. No scientific surgeon touches that film, though I have seen some, generally young and inexperienced persons, touch that quite as freely as the other. Also, if you apply lint, you should keep it from the film, as it has a tendency to adhere to the film, and drag off a portion.

Then another form of ulcer is that called indolent, quite a different kind of ulcer from the one we have been considering; it is that which is seen so much in hospitals in London, being most common in the working classes. These take place almost always in the lower extremities: the granulations are large, pale, and flabby, and the circulation sluggish. You find them very much upon old subjects, and particulary where much poulticing has been practised. The discharge is then fetid, and often blended with coagulated albumen; the edges are thick and callous, often surrounded by thick cellular tissue; the skin is often raised up round the edges, and, by repeated poulticing, gets white, thick, and flabby, and to these the term *callous* is applied; these peculiarities you will often find in hospitals, in chronic sores of the legs. The treatment of these is, as you might expect from the description of their character: the strapping, adhesive plaster, answers well in many of these sores, to bring the skin into a better state; it is not necessary to take the strapping off every day in common cases. You will often find it desirable to use in addition stimulating local applications. The red dressing was used very much once; the yellow basilicon ointment, also, is used by many practitioners to promote the greater activity of absorption. You must not be too free in the use of mercurial applications, or of belladonna. Sulphate of copper and sulphate of zinc you may use in lotion.

DUMAS ON ORGANIC CHEMISTRY.

No. XXXII.

(Continued from vol. xvi., p. 644.)

ON THE FABRICATION OF MANURES, INCLUDING CORRECTIVE AND STIMULANT APPLICATIONS FOR THE SOIL.

In the full acceptation of the word, we designate by the name of manures, all the solid, the liquid, and even the gaseous substances which are capable of serving as aliments to plants. Considered in this general point of view, we may say that manures are very varied. In fact, every substance containing one or more of the elements which enter into the constitution of the vegetable, and which is susceptible of being assimilated to it in the act of vegetation, whether wholly or in part, may be considered as a manure. Sooner or later the plants, when brought into contact with such matters, will assimilate to themselves some of its elements, that is to say, the hydrogen, the oxygen, the carbon, the nitrogen, the water of combination, or even the different calcareous, earthy, or metallic salts, which enter into the composition of almost all plants.

A corrective, on the contrary, is a substance of which the object is to ameliorate the physical constitution of the soil: to render it permeable, where it is too compact; to give it body, if it be too light or sandy; lastly, to change in part its nature, should it be composed of substances which might prove hurtful to vegetation: hence, we can understand that there may exist a host of matters capable of enjoying, at the same time, the character of a corrective as well as that of a manure.

Finally, we give the name of stimulants to those solid or liquid substances which excite vegetation, whether by imparting more activity to the manure, or by stimulating the organs of the vegetable to seize upon the elements which constitute it. Sometimes the stimulants are assimilated wholly or in part by the plants; but their chief office is to render the manures more active, and especially azotized manures. In earths completely devoid of these latter, stimulants would have no action over vegetation; they would impoverish the soil, unless care were taken to repair its strength by fresh azotized matters. The sulphate of lime, lime, and chloride of sodium, when employed in suitable proportions, are energetic stimulants.

Every substance which is capable of furnishing one of the elements which enter into the composition of vegetables, may be considered, rigorously speaking, as a manure; but it is chiefly those matters which can give to the plant the nitrogen necessary to vegetation, the earthy or alkaline phosphates, the alkalis themselves, or those salts which the soil is incapable of yielding to it, that merit more especially this name, in a practical point of view. In fact, matters which can furnish carbon, hydrogen, and oxygen, are found in abundance in nature, and a Supreme Intelligence administers them in suitable proportions, by means of the air or of the water. That which is wanting to the agriculturist, and which he is often obliged to buy at a great cost, consists of the azotized materials, which can alone furnish abundant crops. Since this grand truth has been discovered—since modern chemistry has brought to light the important character of nitrogen—we have seen arise and flourish veritable manufactories of manure, wherein we find the agriculturist turning to advantage those impurities and refuse matters which, formerly, were entirely lost, or which even engendered causes of disease to the inhabitants of our towns.

We shall divide the nitrogenized manures into two classes; in the one we shall range all those manures which are employed just as Nature or adventitious circumstances present them to us; in the other, on the contrary, we shall place those azotized manures which undergo a certain preparation before being employed—in one word, those manures which are furnished to us by a true process of manufacture.

Every liquid or solid azotized substance, which is employed directly and without preparation, whether it arise from the animal, the vegetable, or the mineral kingdom, constitutes a natural manure. Among the animal manures, we reckon all the *debris* or refuse matters of the animal, such as the blood, the flesh, and all waste matter in a fresh condition. All these substances, in their rough state, should be employed immediately; otherwise they rapidly putrefy and give rise to a tainted odour; they can, therefore, only be made use of in the environs of large towns, where they are found in great abundance. We shall see, when we come to study the prepared manures, the mode by which we may succeed in preserving them for any length of time, and whereby we may reduce them to a form which will allow of their transportation to a distance, at the same time that we render their action even more regular and lasting.

The herbaceous vegetables, buried in the soil, present one of the most frequently-employed natural manures, especially in hot countries, where, besides furnishing the necessary nitrogen, they maintain a degree of moisture very favourable to vegetation. Without lauding this practice, we may mention that, in the south of France and in Italy, it is the custom to cultivate some plants, as lupins, beans, and even maize, for the purpose of burying them in the green state, before fructification. For cold and damp lands, it

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is better to employ these plants in the dry state. In this case we may advantageously make use of the stalks of maize or of rye, damaged hay, &c. The leaves of trees may also be thus employed; they contain, as numerous analyses have proved, much more nitrogen than the other parts of the tree. There are many places, as the environs of forests, where we might procure this manure at but little expense.

The herbaceous vegetables are not the only ones which we use as manure. Sometimes we employ for this purpose small shrubs or branches of trees: the broom, furze, &c., come under this class. When we wish to use them in the natural state, we bury the branches while ploughing up the ground. They are applied in this way for the purpose of rendering vines more fruitful, without injuring the quality of the grape. In such case, between each row of vines, we dig a trench from two to three *decimètres* in width, and, after having filled it up with branches, cover them over by means of the earth removed from the succeeding trench. These materials decompose but very slowly, and consequently their effects are maintained for a great number of years. Besides the organic products which they are capable of furnishing to the soil, we must likewise take into account the salts of every description which they restore to it.

We may, however, obtain much more speedy results by macerating these substances beforehand, a practice which is adopted with the prepared manures; but what we thus gain in promptitude of action, we fully lose in durability.

The seeds and fruits of plants and trees are often employed as manures. In Italy they use with great success the seeds of the lupin for manuring orange and olive trees; before employing them they carefully destroy their germinative faculty by torrefying them in ovens. Lupin-seeds contain as much as four per cent. of nitrogen; their use is thus readily explained, as also is that of other seeds which are sometimes employed under similar circumstances, since it is well known that this is the part of the vegetable which most abounds in nitrogen. For the same reason the husks of fruits and of malt, as well as those of the oleaginous seeds or fruits—forming what is known by the name of oilcake—the skins of olives, &c. &c., will produce analogous, and frequently much more energetic, effects, since, while losing a great part of their weight, they still preserve almost the whole of the azotized and albuminous matters which constitute their value as manures. In fact, the cakes formed from linseed, rapeseed, the *arachis hypogæa*, *madia sativa*, &c. &c., contain from five to eight per cent. of nitrogen—an enormous quantity, and which closely approximates to that of dried animal matters.

Lastly, among the natural manures arising from the vegetable kingdom, we must also rank the aquatic plants derived from running waters, or from the sea. The green herbs which are extracted from marshy grounds may be employed in their natural state for the fertilization of the soil: we have, in such case, merely to cover them over with the earth when ploughing. Sometimes they are not used until the process of fermentation has commenced within them. The turfy mass resulting from the decomposition of these plants under water should never be employed without some previous preparation, for the acid reaction which it presents is very injurious to vegetation. It is therefore rendered available for agricultural purposes by saturating the free acids by lime, or, better still, by provoking a process of fermentation, which destroys these acids, or which saturates them by the formation of ammonia. In some localities they burn the turf and spread the ashes over the surface of the field; but we may at once understand that, by this process we destroy the fertilizing part, that is to say, the ammonia or azotized matters of the turf; however, there remains a tolerably energetic stimulant constituted by the salts contained in these ashes.

The marine plants, such as the *fuci*, the *algæ*, the *conferva*, &c., are much sought after, especially where they can be procured without great expense; they contain, besides a certain amount of nitrogen, a little sea salt, which undoubtedly aids their fecundating properties. In Normandy and Brittany, they have made use of these plants from time immemorial; sometimes they at once bury them under the ground which it is intended to fertilize; at other times they merely spread them over its surface; while, lastly, they occasionally mix their *debris* with other kinds of dung, or else stratify them with earth for the purpose of reducing them into manure. This latter proceeding evidently destroys a portion of their efficacy, for the fermentation which is established in the mass invariably sets free some azotized gases; and, moreover, these marine plants are decomposed with such rapidity in the ground that any previous process of disaggregation may, in the generality of cases, be dispensed with.

The mineral kingdom likewise furnishes to the agriculturist some substances which may be regarded as natural manures, and which, consequently, contain a certain proportion of nitrogen; but, in general, they possess highly stimulant and corrective properties. The red or black pyrites, as those of Picardy, in the form of ashes, are largely employed by the agriculturists of the North, and may be considered as an example of an energetic stimulant manure. This substance, which also serves for the manufacture of copperas and of the sulphate of alumina, is found in a great number of localities under the form of a black powder, in which we often meet with shells, the *debris* of vegetables, and bituminous woods in a more or less decomposed state. When formed into a heap it becomes gradually heated, or may even take fire, and thus undergoes a process of slow combustion. After fifteen days or a month of this treatment, the ashes will have partly changed in nature and in colour; from black they will have become red, the iron having passed to the state of peroxide.

According to MM. Girardin and Bibard de Rouen, there exist in the environs of Forges-les-Eaux, on the surface of the soil, layers of a black, aluminous, ligneous pyrites, of greater or less thickness, and which have long been worked for the manufacture of copperas. These pyritous earths, after having been washed in some lee, are usually mixed with a fourth part of their weight of incinerated vegetable matter, and thus employed throughout the greater part of the province of Bray as a very powerful stimulant manure; they are altogether analogous to the black ashes of Picardy.

MM. Girardin and Bibard give the following as the composition of this substance: 100 parts of the ashes, after being subjected to the action of the lee-wash, contain 24 parts of water. One hundred parts of the dried ashes contain:—

Matters soluble in water, 4·53	Organic matter, or soluble *humus*	2·74	
	Sulphate of the protoxide of iron	1·79	
	Sulphate of peroxide		
Matters insoluble in water, 95·47	Fine sand	88·92	
	Insoluble *humus* ..	49·83	
	Sulphuret of iron		
	Peroxide of iron ..	6·72	
		100·00	

The nitrogen in these ashes rises as high as 2·72 per cent.—a quantity which appears very considerable. MM. Boussingault and Payen found in the ashes of Picardy but 0·65 per cent. of this element.

The black ashes of Picardy act then, probably, as a manure, by reason of the large proportion of *humus* which they contain, as evidenced by the above analysis; and as a stimulant, owing to the presence of salts, and more especially of the salts of iron. There is also another action which may have some influence over the rapidity of vegetation, and that is, the heat maintained in the soil by the slow combustion of the sulphuret of iron.

Some of the mixed manures may be employed without any preparation; these are chiefly formed of the refuse matter of large towns, and the excretions of certain animals. The fæcal matters, as well as the urine, either pure or diluted with water, are often employed without any preparation, and, in such case, we have merely to spread them over the land which we wish to fertilize. This plan yields very good results, but it also presents serious inconveniences. In fact, the expense of transport being considerable, we can only employ these manures in the environs of towns, or at least at short distances from the habitations which produce them; and, as the large centres of populations always furnish more than is required for the surrounding country, we lose a great part of these matters if we attempt to employ them in the natural state. In this form, also, they have another grave inconvenience, namely, that they communicate to the plants a taste savouring strongly of the origin of the manure. A further consideration, which we ought not to overlook, is the injurious odour which these matters give out, whether during their transport, or at the moment of their being spread over the field. The air becomes infected by them—a circumstance which does not occur with the manures prepared according to the different methods that have been invented to obviate these inconveniences.

The human excrements constitute one of the best manures. They are employed, in the fresh state, under the form of nightsoil, or as a dry powder obtained by the desiccation of the moist excrements. In many localities, as China, Tuscany, Holland, Belgium, and Alsace, they are used in the fresh state. Sometimes they are dissolved in water or in urine, for the purpose of manuring the ground. In China, they are solidified with argillaceous earth, and the dried mixture is then reduced to powder. In Flanders, where this manure is applied to the culture of the flax, rapeseed, tobacco, &c., the farmers have a custom of collecting the fæcal matters in large and deep cisterns, in close proximity to the fields which require manuring. Here they are left for several months, and undergo a species of fermentation which renders them somewhat more viscous. In this state they constitute what is called *Flemish manure*. Frequently they add to the matters contained in the cisterns some seed-cakes reduced to powder. The azotized substances contained in these cakes quickly become themselves decomposed, and thus contribute to the efficacy of the manure. The addition of these solid matters has also another object. By diminishing the fluidity of the soil, and becoming themselves strongly impregnated with all its liquid particles, they prevent the latter from spreading with too great facility, and thus prolong the fertilizing action of the manure. This never, however, extends beyond a year, action at the furthest.

A *hectolitre* of Flemish manure is equivalent to about 250 kilogrammes of horse dung.

Let us hope that those countries, which are in these respects less advanced, will take example from Belgium and Flanders, where agriculture has made such rapid strides, and where such care is taken to preserve those matters which can be rendered available to the cultivation of the soil. When thus enclosed in the earth and protected from contact with the air, these matters are less exposed to the abrupt changes of the temperature; they ferment less, and consequently may be preserved for a long time without losing their good qualities.

Where we wish to make use of the liquid manure, we draw a given quantity from the cistern; we dilute it with five or six times its weight of water, so that its action be not too energetic, and thus prove injurious to the plants; then we sprinkle it over the field just after the sowing has been finished, or upon the meadow lands when these have been recently mown. Sometimes we pour a spoonful of *Flemish manure*, undiluted, at the foot of each plant—that is to say, where this plan can be adopted without too much labour; but, in such case, we must be careful not to touch the stems, which would be injured thereby.

In the environs of Lille, the expense of a cask of Flemish manure of 125 *litres* may be set down

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at 1fr. 20c.—to wit, fr. 0·30 prime cost, 0·30 expense of transport, and 0·60 hand labour in watering the ground.

The excrements of birds constitute a manure much richer in nitrogen, and, consequently, even more powerful than Flemish manure; they contain, in fact, as much as eight or nine per cent. of nitrogen. These form, without contradiction, the richest of the mixed manures, as also they are the hottest and the most readily changeable. In the departments of the North, where this manure is very much valued, they make especial use of pigeons' dung, which will fetch as much as 100fr. the load—a quantity, however, which is capable of manuring about eighty *ares* (French measure). This rich manure is especially employed in the cultivation of the flax, tobacco, rape, &c.

We have merely to cast our eyes over the analyses of guano already cited, to convince ourselves how rich are the excrements of birds in materials useful for vegetation. They contain, in fact, besides feathers and other animal matters accidentally introduced, uric acid, ammonia, coagulated albumen, and phosphate of lime.

In Flanders and some of our northern departments they carefully collect the dung of pigeons, or *colombine*, as it is sometimes called. In these localities the pigeon-houses are numerous and well stocked, and it is the custom to contract for the dung in the proportion of 100fr. per annum for every six or seven hundred pigeons. With this dung the manuring of a *hectare* (French measure) costs from 125 to 200fr.

The excrements of the fowl, which have been designated by the name of *poullaite*, are held in less estimation than *colombine*.

In general we employ this species of manure in its natural state, and without mixing it with other dungs. It is used especially for raising the seeds of the cerealia in moist and compact grounds, where it is found to be of excellent service. Moreover, we may apply it with great success in the cultivation of the trefoils by mixing it with ashes. In Flanders it is employed at the rate of 2000 kilogrammes per *hectare*, for the purpose of producing copious crops of flax.

We have already remarked that the manures owe their efficacy in part to the urine with which they are impregnated. In fact, we know that this liquid is capable of furnishing, by the decomposition of one of its principal elements—urea—a remarkable quantity of carbonate of ammonia, a body which has been shown to be so necessary to the act of vegetation.

But, independently of the urine absorbed by the dung, there will also be found a portion which escapes, and which we may conceive is capable of being turned to profitable account. In Switzerland it is the custom to collect the urine into cisterns, where it is allowed to remain a certain time before irrigating the land with it. In Belgium they adopt a plan of absorbing it by means of straw, and then adding the latter to ordinary dung. It may even be mixed with marl, clay, sand, or plaster.

That which is commercially known by the name of *urate* is a mixture in equal proportions of plaster and of urine. It is reduced to a powder after having been thoroughly dried, and it is then carefully preserved from moisture. A question here naturally presents itself to us, namely, whether is it better to employ, as manure, the fresh urine; or, ought we rather to prefer that which has undergone a more or less advanced degree of putrefaction? If, with the view of resolving this important question, we allow ourselves to be guided by the generally-adopted practice, we should recommend the employment of putrified urine. But here, as in many other cases, custom may lead us into error, for the course of proceeding usually followed rests on principles which have a rather uncertain foundation.

We know, in fact, that the carbonate of ammonia produced by the fermentation of urine is a very volatile salt, and that thus the principle, most active in exciting vegetation, is in great art dissipated if the urine be preserved too long. To give an idea of the injury which is done to agriculture by this false practice, we may here state that each kilogramme of ammonia which becomes evaporated is equivalent to a loss of sixty kilogrammes of corn, and that with one kilogramme of urine we may reproduce a kilogramme of wheat. We should, then, in all cases, fix the ammonia by adding to the urine some gypsum or sulphate of iron, or else by sprinkling the land with these substances. We thus form a sulphate of ammonia, which is of a more fixed character than the carbonate, and is not less efficacious. Some agriculturists, however, consider it preferable to employ the urine in a fresh state, and suitably diluted with water—a recommendation which we give with some reserve.

A host of other substances analogous to the excrements of birds may be advantageously employed in agriculture, and without any previous preparation. The excrements of the bat, collected in the caves inhabited by these animals, are among this class. So also with the mixed manure produced in sheepfolds or on grazing lands; this is evidently a very simple means of furnishing to the soil the manure which is necessary to it, at the same time that we are giving nourishment to the animals, and also avoiding the cost of transport and other losses which these kinds of manure experience before they are capable of being spread upon the land.

ORIGINAL CONTRIBUTIONS.

GENERAL REMARKS ON ANOMALIES OF THE VENOUS SYSTEM.—PART II.

By C. H. HALLETT,
Demonstrator of Anatomy in the University of Edinburgh.

(Continued from p. 52.)

In a former number of the *Medical Times* I gave a brief account of the general laws appertaining to irregularities of the venous system, and attempted to reconcile, as far as possible, the contradictory statements of the older anatomists respecting their frequency in relation to those of the arterial system, by distinguishing between those which could and those which could not be compared with one another. In this number I intend to describe briefly the more striking and important anomalies which have been noticed in the dissecting-room of the University of Edinburgh during the last winter and summer sessions. Some of these have been noticed and recorded by others, but the greater number, I believe, have not yet been formally brought under the attention of anatomists, or considered in their general relations.

Beginning with the irregularities presented by the veins of the head and neck, I shall first describe those of the sinuses of the dura mater, which are more than usually interesting.

Congenital Deficiency of the Torcular Herophili.

This was by no means an unfrequent anomaly of the sinuses of the dura mater, it having been observed thrice in ninety-three subjects, that is, in the proportion of one to thirty. It consisted essentially in the divergence of the superior longitudinal sinus to one side, as it approached the internal occipital protuberance, whereby the lateral sinus on the side from which it diverged and the occipital and straight sinuses had no connection with it; and consequently the posterior confluence of the sinuses, or, as it is called, the torcular iterophili, did not exist, the sinuses normally entering into it having, in general, the following abnormal arrangement:—The superior longitudinal sinus, on approaching within an inch of the internal occipital protuberance, suddenly diverged from the median line, ran obliquely downwards, forwards, and outwards, and became continuous with, or rather opened into, one or other of the lateral sinuses, most frequently the right, near the commencement of the middle third of its horizontal portion. The lateral sinus, continuous with or receiving the superior longitudinal sinus, followed its normal course, and, becoming smaller and smaller as it approached the internal occipital protuberance, terminated on it in a cœcal extremity, which received the straight sinus at a right angle. The opposite lateral sinus—that from which the superior longitudinal sinus had diverged—pursued its normal course to the foramen lacerum posterius; but at the occipital protuberance it curved downwards and became continuous with another sinus, placed a little on one side of the median line, and, on being traced to the inner and posterior border of the foramen magnum, was found to be formed by the convergence and union of the two occipital sinuses. This lateral sinus was invariably very small, its calibre being to all appearance not more than one third of that of the opposite sinus. The occipital sinus on the same side as the enlarged lateral sinus communicated with it in one instance, but not in the other two, near the foramen lacerum posterius; its normal dimensions, however, were preserved. The opposite occipital sinus was greatly enlarged in all, and opened into the corresponding sinus at the foramen lacerum posterius, where an unusual dilatation existed. In consequence of this peculiar arrangement, the occipital sinus and the lateral sinus formed a complete venous circle, of nearly equal dimensions throughout, which encircled one of the cerebel-fossæ of the occipital bone.

The only variation in this arrangement of the sinuses consisted in the existence of a communicating branch passing between the common trunk of the occipital sinuses and the straight sinus, through the falx cerebelli, which thus gave rise to a more free communication between the sinuses of opposite sides of the cranium. This was observed in one subject only.

The remaining sinuses of the dura mater invariably presented alterations in their relative dimensions, corresponding in some degree to those found in the sinuses entering normally into the formation of the torcular iterophili. The superior and inferior petrosal sinuses on the side corresponding to the small lateral sinus were much smaller than ordinary, although they terminated in their usual places; they were so small that they would scarcely admit the stilette of a small blowpipe within them. The petrosal sinuses on the opposite side were considerably enlarged; the lower, in consequence of a slight displacement, appeared to receive directly the transverse sinus, the cavernous, and the circular sinuses, all of which were greatly increased in size. A curious circumstance connected with this anomaly was, that the transverse sinus, instead of running in the dura mater, was found coursing obliquely under a bony arch formed in the basilar process of the occipital bone: this is occasionally seen in the normal state, but not to such an extent.

This anomaly necessarily gave rise to anomalous markings of the bones of the cranium, and more especially of the occipital bone. It appears to be more frequently found in females than in males; and, in connection with this, I might mention again that the deficiency and displacement, which evidently cause the anomaly, more frequently existed on the left than on the right side of the cranium. A tendency to its production may be observed in every subject, in the divergence of the superior longitudinal sinus from the median line, and consequent greater size of one of the lateral sinuses—a circumstance which has been long known to anatomists, and may be readily accounted for on general principles of formation.

Congenital Deficiency of a Lateral Sinus (Horizontal Portion of).—This, which appears to be an unfrequent anomaly, is seemingly a modification of the preceding. It was only observed once, and in that instance the whole of the horizontal portion of the left lateral sinus was deficient from the torcular herophili to the petrous portion of the temporal bone. The perpendicular portion was extremely small, and appeared to be a mere continuation downwards of the left superior petrosal sinus. It was not larger than a goosequill, and had no connection with the oc-

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cipital vein, the mastoid vein not existing. Near the foramen lacerum posterius it received the inferior petrosal sinus; and the left occipital sinus, which was enlarged considerably, pursued a nearly direct course from the torcular iterophili to the foramen lacerum posterius, and appeared in some measure like a lateral sinus displaced downwards. Such a displacement of the lateral sinus has been described; but I am inclined to believe that the so-called lateral sinus was nothing more than an enlarged occipital sinus, and that the lateral sinus itself was partly or wholly deficient. In consequence of the deficiency of the horizontal portion of the lateral sinus, the outer margin of the tentorium cerebelli did not bifurcate, but was single, and attached to a slightly elevated ridge in the situation of the horizontal groove which normally receives the corresponding portion of the lateral sinus.

Double Lateral Sinus on One Side.—This is a very uncommon anomaly. Like the preceding, it appears to affect the horizontal portion of the sinus only, the perpendicular portion in two instances in which I observed the anomaly having been normal. In those two instances it was found to originate in the development of a horizontal fibrous septum, stretching across the sinus from the point of division of the outer margin of the tentorium cerebelli to the centre of the horizontal groove of the occipital bone, where, in one instance, a slight ridge existed. This septum may be developed on either side of the cranium, and, although I have not yet seen it on both sides in the same individual, it is more than probable that it will be observed hereafter. I often found an imperfect septum floating in the sinus, and I believe that it is represented in the normal state by a slight projection inwards of the inner angle of the sinus, which projection almost invariably exists, especially at its anterior part.

Anomalies of the External, Anterior, and Internal Jugular Veins.

The *external jugular vein* is extremely liable to variation in point of size and number. Indeed, its variations are innumerable and seldom alike. Being one of the veins accessory to the internal jugular, as might have been expected, it was found to vary in size with it; and, having a very free anastomosis with the anterior jugular vein, which is in some measure accessory to it, its size generally bore an inverse ratio to that vein. It was not an unfrequent thing to find the veins of opposite sides of the neck of different sizes, the left being, in general, smaller than the right; in fact, this was by far the most common irregularity of the external jugular vein. The differences in size depended on the number and magnitude of the branches it received, and particularly of that from the temporo-maxillary vein.

It was occasionally found deficient on one side only, and in one instance on both sides: in all these cases the temporo-maxillary vein and the facial vein united together, and the common trunk formed by their union, after sending a branch to the anterior jugular vein, dipped into the anterior superior triangle of the neck, and entered into the internal jugular vein, opposite to the thyroid cartilage. The branches and twigs usually passing into it in the neck proceeded partly to the anterior jugular vein and partly to the subclavian vein, the latter generally uniting with the supra-scapular and posterior scapular veins, and receiving the communicating branch from the cephalic vein before entering into the subclavian vein. In some few cases a mere trace of the external jugular was found. When the veins forming the external jugular vein had the arrangement just described, which I found to be the case about once in every fifteen subjects, the superior trunk and the branches connected with it represented very closely the external carotid artery and its branches: consequently, this anomaly causes the veins and arteries in the head and neck to correspond more closely in their arrangement than they do in the normal state.

Another irregularity, which occurred nearly as often as the preceding, consisted in the doubling of the vein. This I found to arise from various causes. It sometimes resulted from the non-union of the temporo-maxillary and facial veins, which then passed down the neck parallel to, but slightly distant from, each other, in the normal position of the external jugular vein, and terminated separately in the subclavian vein. It most frequently originated, however, from the greater number of the occipital veins, both superficial and deep, passing down the neck after uniting about half an inch from the external jugular vein, which was always smaller than ordinary, and receiving all the lateral and posterior veins of the neck in its course downwards. In some subjects the trunk so formed entered into the communicating branch from the cephalic vein, but in most of them in which it was observed, it entered into the subclavian vein. This anomaly, also, appeared to me to have proceeded sometimes from a longitudinal splitting of the trunk of the external jugular vein during development, for it was not uncommon to meet with a more or less complete division of it at its lower part, the two portions passing separately into the subclavian vein, or having other connections. This I considered to indicate that the vein may be doubled by splitting from below upwards, as well as by the non-union of its upper and great branches of origin. Nothing could be more variable than the mode of termination of the lower portions of the external jugular vein, when it was either partially or completely double. It would be useless to mention all the variations in their mode of terminating, as most of them were without any interest; but I may notice one or two which, from their rarity, may not be undeserving of mention. In one subject, where it was completely double, the continuation of the temporo-maxillary vein passed through a foramen in the clavicle, and entered the cephalic vein about an inch and a half down the arm: there was no communication between the cephalic vein and the other division of the external jugular vein. I another subject, I observed what may be called the continuation of the facial vein, receive the supra-scapular and posterior scapular veins, which usually opened into the outer trunk, and also the internal mammary vein, and, after dilating into a kind of sinus, enter by a small aperture in the angle of union of the subclavian and internal jugular veins. I think it proper to state that, where the external jugular vein appeared to be doubled in the manner first alluded to above, both the temporo-maxillary and the facial veins were also connected with the internal jugular vein.

It may not be improper to point out that all these irregularities caused some variation in the contents of the subclavian space; that in dissecting that space, in some subjects, no external jugular vein was met with; while in others, a small vein was found running close to the anterior border of the trapezius muscle; and that, in several other subjects, the reverse was found, two veins of nearly equal size having been found coursing at some short distance from each other through the very centre of the space.

The *anterior jugular vein* presented numerous variations in size and number. The variations in size depended on the number and magnitude of the branches it received, and, more especially, on the magnitude of the communicating branch from the external jugular vein. It was extremely large in one subject, in which the whole of the facial vein entered into it. It was sometimes deficient, but more frequently was very small and scarcely discernible when empty.

The *internal jugular vein* varied in size according to the number of branches it received, and, consequently, according to the magnitude of its accessory trunks. In those subjects in which the external jugular vein was deficient, it was unusually large, in consequence of all the larger veins in the head and upper part of the neck entering into it. The right vein was most frequently the larger of the two, which depended partly on the right lateral sinus being in general larger than the left, and partly on a corresponding irregularity in the calibre of its tributary trunks.

Passing over, for the present, the numerous and for the most part uninteresting irregularities in the other veins of the head and neck—some of which have been mentioned incidentally in describing the anomalies of the jugular veins; and those observed in the veins of the trunk, most of which are noticed in works on anatomy—for the reason that I intend to record them at some future period in a statistical form, which of all others I consider to be the most useful, I have now to notice two interesting anomalies in the veins of the pectoral extremity.

Congenital Deficiency of the Cephalic Vein.—This is a rare anomaly, although the cephalic vein is not unfrequently found exceedingly small. It was observed twice, and, what is very remarkable, both times in very muscular male subjects. All the superficial veins of the forearm and the greater number of those of the arm entered into the basilic vein, which was consequently greatly enlarged. Without entering into a detail of all the irregularities of the veins at the bend of the elbow, I may state here that the greater number, if not all of them, tend or exhibit a tendency towards the production of this anomaly. The cephalic vein appears to be almost invariably smaller than the basilic vein in the normal state, and it is usually rendered still more so by the loss of one or more of its tributary branches, when the arrangement of the veins is abnormal. The anomaly is interesting in a physiological point of view, inasmuch as it causes the superficial veins of the pectoral extremity to correspond very closely to those of the pelvic extremity.

Displacement of the Axillary Vein.—In three subjects the axillary vein was observed to pursue an abnormal course in relation to the corresponding artery, in consequence of a very slight irregularity in the junction of the basilic and brachial veins. The veins on the inner side of the brachial artery had passed behind it and united with the outer brachial vein near the lower border of the axilla, and thus the relative position of the axillary vein and artery was materially altered. The vein, in its course upwards, pursued an oblique direction from without inwards, and had three different relations with the artery. In the lower third of the axillary the vein, instead of being on the inner side, was situated on the outer side of the artery; in the middle third of the space, it crossed in front of the artery, and was, therefore, anterior to it; and in the upper third it had nearly regained its normal position. The occurrence of this anomaly about once in every thirty subjects, and the change in the relative position of the artery and vein in that part of the axilla where the artery can be most easily reached, render it an object of interest to the surgeon.

OBSERVATIONS ON OPHTHALMIC SURGERY.

By H. HAYNES WALTON, Esq.,
Surgeon to the Central London Ophthalmic Hospital, &c. &c.

(Continued from p. 53.)

According to my promise in my last paper, I communicate the following case from S. Browne, Esq., surgeon to the Belfast Ophthalmic Infirmary. I leave it to my readers to compare it with my own case: I shall not, therefore make comments or point out any conformity.

CONGENITAL CATARACT.—OPERATION—RESULT—REMARKS.

William H., aged thirty, applied at the Ophthalmic Institution on the 5th of September, 1846. "He came," he said, "to consult me relative to a defective state of sight, under which he had laboured since earliest infancy." Before he addressed me, I had observed, as he advanced across the room, that he carried his face inclined downwards, shading his eyes with lowering contracted brows, and walked with that peculiar unassured gait which is characteristic of certain affections of the organs of vision; consequently I at once inferred the case as likely to be one of incipient cataract. Upon examining the eyes, which were remarkably

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prominent, I observed in each, in the axis of vision, behind the pupil, and deep in the posterior chamber of the aqueous humour, a small spherical dark amber-coloured body, seemingly about one line and a half in diameter, having the marginal outline well defined, and standing out from the dark space beyond it, distinct, like the appearance presented by a hydatid when seen in the anterior chamber. This little body was apparently, from the equality of colour, of equal density throughout.

The irides were of a mixed grey and hazel shade; the radiating fibres remarkably distinct, and in a strong light acted very rapidly, contracting the pupils to a minute size. The pupils, when examined in a subdued light, seemed rather larger than are usually seen in healthy eyes, but quite circular and regular in the margins.

The corneæ were clear and very prominent, giving to the anterior chambers unusually large antero-posterior dimensions, as was observed when viewed obliquely, by having the patient's eyes directed downwards and inwards.

The history of the case, as detailed by the patient, a remarkably intelligent man, left no doubt upon my mind that the cataract was one of congenital origin, and that the defect had undergone little change subsequent to his birth. In boyhood he had been enabled to learn to read by the use of very large print; but was prevented from acquiring any trade, vision being too imperfect for that purpose. Since his earliest impressions, he distinctly remembers that his sight was always greatly confused, never enabling him to clearly see any objects distant from him a few feet. At the time of applying to me he could read large Roman type by holding the book within three inches of the eyes. He could distinguish a person with whom he was well acquainted at the distance of about eight feet, but exceeding that, everything became confused and indistinct, with the increasing space, till, at the interval of about twenty yards, every object was lost in the general mist that, beyond the distance mentioned, completely limited his sphere of vision.

Under these circumstances, he was most anxious to have something done, especially as every kind of artificial lens—concave and convex—failed to improve his sight.

Seeing his anxiety to have an operation performed, and as I also believed that the removal of the opaque body would materially improve his sight, especially in eyes having the peculiarity of structure already referred to, I determined to afford him the benefits likely to result from an operation, at the same time pointing out to him the possible chance of his losing an eye by the trial.

On Sept. 8, having selected the left eye, which had, he stated, less perfect sight, and having dilated the pupil by one drop of the solution of atropia applied to the conjunctiva—which application, I may here remark, did not increase the power of vision in that eye—I introduced a very fine straight needle through the cornea, one line from its circumference, and carried it obliquely back to the atrophied lens, tearing through the apparently *puckered* capsule with one light vertical touch of its point. Upon withdrawing the needle, I observed that the substance of the lens was soft, and as if advancing a little through the ruptured capsule, a small shred of which membrane had been drawn by the needle in its exit to the puncture in the cornea and adhering in the wound, thus prevented the loss of more than a drop or two of the aqueous humour. A little thinned extract of belladonna was then smeared around the lids, and a soft compress and bandage lightly applied. Next morning, Sept. 9, I found that my patient had suffered greatly during the night from irritability of stomach, which still continued. He felt some pain and fulness in the eye operated on, with headache, and intolerance of light in the sound eye; these he attributed to the incessant retching he had since the preceding evening. On examining the eye, the subject of operation, I found the conjunctiva greatly injected, along with a constant flow of tears, which he described as "hot and scalding." The pupil was pretty well, though not fully, dilated; and filling up its entire space, and a little more advanced into the anterior chamber, was the lens, that had changed into a whitish shade, and had expanded its hitherto shrivelled capsule, along the front of which could be seen the incision made by the needle. The iris was not apparently inflamed in substance, but there was a slightly turbid state of the aqueous humour, indicating the presence of some aquo-capsulitis. To allay the irritability of stomach, I ordered a draught, composed of a drachm each of tinctures of hyosciamus and laurel-water, in one ounce of cinnamon-water; this to be repeated every two hours until the stomach became composed: so soon as this was attained, I desired five grains of calomel and one of opium to be given every three hours. Warm fomentations of poppy-head decoction, containing a drachm of extract of belladonna in each pint, were also directed to be kept constantly applied to the eye. At the evening visit, nine P.M., I found that the second draught had quieted the stomach, and that he had taken two doses of the calomel, which acted freely upon the bowels. The headache was nearly gone, and the feeling of pain and fulness in the eye much less. Three grains of calomel and half a grain of opium were ordered to be given every three hours during the night. A fold of lint dipped in the decoction of belladonna and poppy capsule was directed to be applied to the eye, and to be covered with oiled silk, and renewed occasionally.

Following morning, Sept. 10, seven A.M., I found that my patient had passed a good night, having had some quiet sleep; the pain of the eye was much diminished, but he still experienced a feeling of fulness; the injection of the conjunctiva and lachrymation still continued; the headache quite gone. The internal aspect of the eye was much the same as on the preceding day, but the pupil was somewhat more dilated, the margin of the cataract being visible immediately behind it. Aqueous humour still a little turbid. The calomel and opium were ordered to be continued, but exhibited only every fifth hour. The lotion of belladonna to be kept applied.

Sept. 11., eight A.M. The patient complained of soreness of gums and a very unpleasant taste in the mouth; the eye seemed very much improved in every respect. The medicine, as ordered, to be given only night and morning; the lotion still to be applied. A smart purgative was also exhibited.

From Sept. 12 till the 28th of same month, the eyes continued gradually to improve; at the latter date, all traces of the previous inflammation disappeared, though the vision of objects was quite lost. He described the light as being "strong and white, as if seen through a mass of snow."

On Oct. 1, I desired him to return to his employment—turning a wheel for a glasscutter—and to call occasionally at the dispensary.

During the succeeding three months, absorption of the lens proceeded very slowly; the rent in the capsule had opened a little at its edges, and appeared inverted or curled inwards.

On Jan. 6, having applied the solution of atropia, I again introduced the needle as before, and freely lacerated the then semi-opaque capsule, and passed the needle through the then pultaceous mass of the lens. No disturbance followed, and on the 28th of the same month, nothing of the lens was to be seen, the opaque portions of capsule hanging down like double curtains, and alone impeding sight, "preventing him," as he remarked, "from seeing as well as any one."

The following day I introduced a fine curved needle through the sclerotica at the usual point, and, having transfixed the capsule in two places, I gave a rotatory motion to the needle, and carried the thus-rolled-up substance backwards and downwards into the vitreous humour, where it remained out of the axis of vision. A few days after, when the eye had quite recovered from the slight iritation produced by the operation, the patient read a full type at the distance of fourteen inches, and could distinctly see a large iron railing at the distance of fully two hundred yards. A convex glass of a moderate power, about ten-inch focus, somewhat improved the sight, both near and distant.

At that time he was most anxious to have the right eye also operated on, but I preferred waiting the arrival of a more genial season: in the meantime severe illness prevented my attendance at the institute for about two months. Upon resuming the charge of my patients, I found that the subject of this report had called early in the month of May to see me; he was then on his way to England, where he had obtained a situation; he was in high spirits, his sight, he imagined, daily improving; but the pressure of a family's wants prevented him from having his right eye attended to "till a more convenient season."

REMARKS.

The case I have just detailed is instructive in some respects—such a one, I imagine, being very rarely met with; indeed I have never seen any very like it in character, nor have I read of any case bearing a strict resemblance to it; though, it is true, the central capsulo-lenticular cataract, usually of congenital origin, and the siliquose capsulo-lenticular or membranous cataract, present something of the same appearance. In my case the capsule was nearly transparent until after the inflammatory attack; the lens, as I have already noticed, of a deep amber colour and of soft consistence. The capsule was thrown into minute folds, as if it were attached to the lens at some parts and were free at others; it seemed altogether, indeed, a "loose fit," like a capsule originally intended for a perfect lens, but, on finding it too large for the enclosed body, Nature seemed to have made the best adaptation of the covering that the relative conditions of the parts permitted. I think there is every probability that the atrophy, or arrest of growth of the lens, occurred before birth; for the patient was quite certain that his parents observed "something astray about his eyes," as he expressed it, "at the time when children usually begin to take notice of surrounding objects." Besides, the exact conformity in the eyes helps to the belief that the disease was congenital in its origin.

Had I not been urged to it by the patient, I would not have operated on eyes having the amount of vision his possessed; but when he seemed quite bent upon having something done, and as I knew that the anterior operation for selection was not usually attended by much risk, I consented to give one eye a trial. The amount of irritation and inflammation that followed the operation in this case does not usually ensue upon the use of the needle alone, especially when passed through the cornea; indeed, I rarely see any unpleasant consequences on any of my needle cases. The calomel, along with the soothing effects of the opium, and the external application of the warm lotion of poppy-head decoction with extract of belladonna, subdued the existing excitement without any depletory measures having been required; indeed, I seldom find it necessary to resort to the active depletion I occasionally see mentioned in some of the published cases of the ophthalmic practice of the day. The irritability of the stomach that occurred is by no means an unusual sequence after needle operations, but is seldom so great as in this instance. Why such a seemingly simple operation should produce this effect I cannot explain, especially when we see much more serious wounds inflicted in the various tissues of the eye without any such unpleasant result. I have found that nothing so soon allays this distressing affection as the combination of tincture of hyosciamus and laurel-water, which certainly has had, in my hands, a much more rapidly sedative effect than either opium or hydrocyanic acid.

It will have been observed that absorption or solution proceeded very slowly during the first four months: this I partly attribute to not having

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used the needle more freely in my first operation; for when, upon its second introduction, I tore the capsule completely, and passed the needle through the mass of the lens, a very few days sufficed to entirely remove the whole substance, except a portion of the lacerated capsule. I would not, however, in such cases recommend a very free use of the needle at first, for in the case under consideration, had I completely tore away the anterior part of the capsule, it is very likely that the loosened lens would have been thrown, by the stress of the vomiting that occurred, into the anterior chambers, and have produced, in an eye evidently very irritable and predisposed to inflame, a much greater amount of inflammation than actually ensued. This accident, it is true, is not always followed by bad results, for I have seen it happen in four instances without any consequent evil; in one of them, indeed, the result was most satisfactory, as the entire mass of a soft congenital cataract was removed by absorption within nine days from the first operation. But then, again, I have seen, in some other instances, where the nucleus of a hard lens has slipped forward, and where extraction was forbidden by the nature of the case, the most violent inflammation occur, followed either by closure of the pupil or disorganization of the eye. The amount of vision enjoyed by the eye operated on over the other will be easily understood when the peculiar construction of the eyes in this patient is remembered. They were very large and prominent, with unusually convex corneæ, such as with perfect lenses would have probably been *myopic*. The removal then of the central opaque body, that not only intercepted the straight rays of light, but also impeded the progress to the retina of the oblique rays, which had been greatly refracted in passing through the convex cornea, and thus, confusing the outlines of all-save objects very near, at once permitted the rays reflected from surrounding objects to fall upon the retina at almost the point of correct vision, and at the proper angle of incidence, producing nearly as distinct an impression, unless when viewing very minute or very distant things, as is observed by an eye of normal mechanism and healthy structure. And that, after the removal of the opaque medium, this very remarkable distinctness of vision in an eye without any crystalline humour was caused by the powerfully refractive corneæ is quite evident —first, that in no other way could such perfect sight have existed independent of an artificial lens; and secondly, from the fact that belladonna, by dilating the pupil, did not improve the vision, though in ordinary cases, with such a small central opacity, it would have been very much improved by the application; besides, the position I assume is fortified by the fact that the artificial lens required to make the eye a really good *mediopic* one was not of a high magnifying power, having only a ten-inch focus.

The operation, undertaken contrary to the usual inculcations of authors, has been fully justified in the issue; and, although the present result must be satisfactory to the patient, he will naturally regret that something similar was not done for him in infancy, which probably would have been the means of placing him in a very different position from that in which he had so long and cheerlessly been obliged to toil.

CONTRIBUTIONS TO THE MEDICAL TOPOGRAPHY OF THE MEDITERRANEAN.

By WILLIAM THOMPSON KAY, Esq., Assistant-Surgeon of the Plymouth Division of Royal Marines.

"THE GRAND OBJECT OF ALL TRAVELLING IS TO SEE THE SHORES OF THE MEDITERRANEAN: ON THESE SHORES WERE THE FOUR GREAT EMPIRES OF THE WORLD—THE ASSYRIAN, THE PERSIAN, THE GRECIAN, AND THE ROMAN. ALL OUR RELIGION, ALMOST ALL OUR LAWS, ALMOST ALL THAT SETS US ABOVE SAVAGES, HAS COME TO US FROM THE SHORES OF THE MEDITERRANEAN."—*Samuel Johnson.*

SYRIA.—*Its Situation, Name, Extent; Divisions, Ancient and Modern; Physical Characters; Productive Industry; Manufactures; Civil and Social State; Climate; Diseases; State of Medicine and Surgery; Works on the Topography, Natural History, &c., of Syria.*

(Continued from p. 35.)

Turners.—The workman is seated in the Oriental fashion before his rude lathe, formed by driving two stakes into the ground, a short distance apart, on which he rests an iron spindle, or by placing two blocks of wood, with the required space between, on which a bar of iron is placed as a rest for his tool; and, taking his bow, he twists the string round the object to be turned, then fixes it, and, working the bow backwards and forwards, rests the chisel on the iron bar, and gives those touches to the wood, &c., which he considers necessary to complete the design. By means of such a rude machine, the Syrian manufactures spinning-wheels, bowls, plates, lattice-work, distaffs, boxes, staircase balustrades, &c.

Coffee, roasting and preparing.—The coffee-beans are thrown into a pan, which, being placed over a charcoal fire, is kept in a constant state of agitation until the coffee is sufficiently roasted. It is then fit for the Oriental process of pounding, which is performed either by mills constructed for that purpose, or by a man standing upon a low platform, who holds a wooden pestle, with a handle nearly six feet long, with both his hands, and pounds the charred coffee in a marble mortar placed on the floor, grunting forth a "Yah! yah!" at every stroke, forcibly reminding one of our London paviors. It is afterwards sifted. To prepare the decoction, three tablespoonfuls of coffee are put into a small tin, copper, or brass pan, holding about three ounces, and boiling water poured on it. In about a minute after it is placed over the fire it is fit for use, which is indicated by boiling over. The decoction is then poured into small cups.

Confectioners.—The Syrians manufacture their confectionary after the same manner, and employ the same names, as the Turks, viz.:—

Badem haloassy, made of almond-flour, honey, and rose-water.

Gulbeh shecker, made of plum-jam flavoured with roses.

Gulkand, which is sugar-candy *à la rose*.

Halva, made with sesame flour (*Sesamum orientale*) and honey, flavoured by rose-water, lemon, or white grape-must. In this, sweet almonds, pistaccio nuts, peach kernels, filberts, or apricot kernels are introduced.

Hashlanmash is Indian corn, parboiled in vinegar and water.

Kabáb is Indian corn roasted.

Kaimak resembles the clotted cream of Devonshire, and is prepared in nearly the same manner.

Kataif, composed of sifted wheaten flour, butter, milk, sugar, and eggs, in the middle of which lumps of kaimak are placed.

Levzineh, made of flour, butter, honey, and almonds.

Lokmah-cake, sugar, milk, butter, eggs, and sifted wheaten flour are made fluid with rose-water, and poured into a tin tube with a bottom perforated like a sieve. This is waved to and fro over a heated slab, the mixture drying quickly in long shreds.

Moohabybee, composed of rice-flour boiled to the consistence of a jelly, sweetened with honey, sugar, or treacle, and flavoured with rose, peach, or cherry-water.

Rahatlacoom consists of sifted wheaten flour, honey or sugar, rose-water, the pulp of white grapes, and the kernels of apricots.

Shekerlob, a species of sugar-candy.

Tchorek, made of flour, sugar, eggs, and oil or butter.

Yahoort, literally sour milk, is made thus:—Put into a basin a spoonful of beer-yeast or wine-lees; pour on it a quart of boiling milk: when it is formed into a curd, and is become sour, take of it a tablespoonful and a half to serve for a fresh quart of milk, in the same manner as the yeast. This, after a few repetitions, will become yahoort, and lose the taste of the yeast by degrees.

Corn-grinding.—The very primitive process of grinding corn by the handmill is performed by means of two small circular millstones. The lower one is fixed when in use, and the upper is turned round by means of a wooden handle projecting obliquely from the upper surface; the mill being replenished through a hole in the upper stone. The meal falls out at the edges, and is received in a cloth. This labour is generally performed early in the morning by women,(a) who beguile the time by singing, thus warning the indolent that it is time to rise. The water-mill is very simple. The stream, conducted by a channel to an earthen pipe, falls upon the water-wheel, which is connected by means of a cog-wheel with the beam of the upper millstone, causing it to revolve horizontally upon the nether one. A wooden box, resembling an inverted pyramid, contains the grain. This is slung to a beam over the upper millstone, and has a piece of wood loosely attached to the side by one end, the other resting on the millstone, which, as it revolves, jerks the wood, and by this means shakes the grain out of the box; after the corn is ground it falls into a trough in front of the stone. Windmills are very seldom used, and resemble our own so nearly that a description is not needed.

Corn-threshing.—A level spot is selected for the threshing, or, to write more correctly, the treading-floor, which is beaten down in the form of a circle. Upon this the sheaves are spread out very thickly—about a foot deep; and the grain is trodden out by animals tethered to a stake driven in the centre; or a plank(b) three feet wide, and four or five feet long, the lower surface of which is set with sharp flint-stones, is driven over it, thus forcing out the grain, and cutting up the straw into chaff.(c) On this

Damascus Blades.—Damascus sabres manufactured prior to 1600 are seldom seen, but modern blades of less pure temper and lighter colour are common. Their form is nearly similar to the khorassan; but the latter, when of extraordinary temper, will cut through the former as would a knife through a bean-stalk. Modern Syrian blades are more charged with gilded inscriptions than those of Persia. These inscriptions consist in most instances of the Mashallah (as God wills it) on one side, and upon the other is the name of the reigning monarch, and that of the maker and date near the guard. The finest Syrian sabres are those of the thirteenth and fourteenth centuries. Some of these, as well as battle-axes and maces of the same epoch, are now and then met with, bearing the date of 755 of the Hegira. A full-sized khorassan, or ancient Damascus sabre, should measure about thirty-five inches from guard to point; the back should be free from flaws; the watering even and distinct throughout the whole length; the colour a bluish grey. It should not be overcharged with inscriptions, as they were more frequently added to conceal defects than denote excellence. A perfect sabre should consist of forty compartments of watered circles, diminishing in diameter as they reach the point. The old Damascus manufactory ceased to exist in 1400. When the victorious Tamerlane conquered Syria he removed the armourers to Ispahan, where the fabric not only flourished, but soon excelled the original. This is the reason why the khorassan blades of the last four centuries are preferred to those of Syria. Good Damascus blades, with plain scabbards of seal-skin, and copper-gilt mountings, may be had from 800 to 1200 piastres (£8. 6s. 8d. to

(a) "Two women shall be grinding at the mill; the one shall be taken, and the other left."—Matt. xxiv. 41.

(b) "Tribulaque, traheque, et iniquo pondere rastri."—*Virgil Georg.*, lib. i., line 164.

(c) "Behold, I will make thee a new sharp threshing instrument having teeth."—Isa. xli. 15. plank stands the man who drives the oxen harnessed to it.

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£20. 16s. 8d.); others, defective, for much less. (a) I have known as much as £40 paid for one.

Distillers.—The still employed is very simple in its construction, consisting generally of a copper retort placed over a furnace, connected to which is a long, straight tube, passing through a tub of water, similar to that described by Dioscorides. Used for distilling *aqua ardente*.

Druggists will be described in another portion of this chapter.—See "State of Medicine and Surgery."

Dyers.—The Arabs have great difficulty in producing a good *green* dye, but their blue is excellent. They make a hot solution of the colour, in which they steep the article to be dyed, adding wood ashes; eight or ten days are sufficient to complete the process. For *red*, they employ madder, Brazil wood, safflower, and logwood. For *yellow*, fustic, turmeric, sumach, and saffron. For *blue*, woad, indigo, and orchil. For *brown*, walnut-root raspings, and sumach bark. For *black*, gall-nuts, oak-bark, and valonia; with red oxide of iron.

Embroiderers.—The chief articles manufactured by these people are tobacco-bags; long scarfs embroidered on muslin, merino, or shawl-stuffs; handkerchiefs, dresses, coverlets, praying-carpets, napkins, waist-girdles, jackets, &c.; in the embellishment of which they employ coloured silks and velvets, gold and silver thread, pearls, and precious stones, executing most elaborate devices. The most common designs are wreaths, palm-leaves, stars, crescents, the sultan's cipher, and flowers; and are generally worked on the hand.

Engravers.—Those who practise this art are strictly forbidden by edict to engrave two seals exactly similar for the same person, to cut moulds for coin of any description, and ciphers or plates resembling writing, lest they should be used for fraudulent purposes. For signet-rings and seals, silver is generally used, but bloodstones set in silver are also much employed. Those who engrave stones as well as metals display their different specimens, consisting of bloodstone, cornelian, onyx, agate, and pebble seals, arranged in saucers kept under a glass case placed before them while at work. If a purchaser apply, the engraver produces a piece of black-looking beeswax, moulds it into a cone, and, moistening the apex, presses it on the seal; he then hands the impression to the customer for approval.

Farriers and Blacksmiths.—The blacksmith employs charcoal instead of coal, (b) and stands to his work when it requires to be heated; but, in finishing the articles, sits on the ground.—The *forge* in simple: a small mud or clay wall is built about eighteen inches high, with a wall on one side to prevent the bellows being injured by the heat: a hole is made level with the ground, and an iron pipe introduced, to one end of which is attached the bellows, the other being under the fire.—The *bellows* is formed from two skins attached to the iron pipe, opened at the upper part by means of two spikes, having a small leather handle to each; the thumb is passed through one of them, and the fingers through the other: so that the hand easily opens and shuts the skin. The mouth being closed, the skin is pressed down and throws the current of air through the pipe. It is again opened and lifted up, when it is once more ready. Thus, alternately with each hand, the current of air is kept up to the fire over the pipe.—The *anvil* is a small square-ended piece of iron, sunk in a log of wood, and partly buried in the earth. An ordinary hammer, a pair or two of pincers, and a drill complete the apparatus.—The Arab horseshoes turn up behind, and are formed out of a flat piece of iron with a hole in it; and are generally so badly put on that most horses' feet are injured by them.

Jewellers.—These men manufacture all the fine filagree-work for earrings, necklaces, coffee-cup holders, frames for looking-glasses, talisman-cases, crescents, stars, and a variety of articles in gold and silver. Rings in which are set diamonds, rubies, emeralds, aquamarines, amethysts, carbuncles, and sapphires; bracelets and anklets, with jewel clasps; the *tantour*, or long horn worn by the female mountaineers of Lebanon, usually made of silver, adorned with raised figures of stars and various other ornaments; and the *tepelik*, or skull-plate, studded with diamonds, rubies, pearls, &c.

Kaboob-makers.—Kaboobs are made of meat chopped up like sausage-meat and highly seasoned with salt, pepper, onions, and other spices, with some sour vegetable. The minced mixture is daubed upon a piece of wood or a flat iron skewer until it assumes the appearance of an oblong cake about half an inch thick and two long. In this form they are suspended over a clear charcoal fire, and in a few minutes assume a brown crisped appearance. The skewer is then withdrawn, and the kaboob wrapped up in a cake of the thin flexible bread described before.

Lapidaries.—These men grind and polish various kinds of stone by means of a wheel (rotated by a bow and string), the edge of which is covered with emery or fine sand mixed with gum-lac. They obtain the rough stones from pilgrims, merchants, or the regular Arab dealers, and dispose of them after they are cut and polished to the engravers.

Marquetry.—The Egyptians have carried this art to a greater perfection than the Syrians, yet there are many very beautiful specimens extant in Damascus. The groundwork is generally composed of fir, pine, or well-dried oak secured from warping, and on this is veneered the various kinds of wood employed in executing the design. The veneer having been cut to the requisite thickness, the pattern is sketched upon its surface; it is then fixed in a vice and cut through by means of a saw working horizontally. When the pieces are all properly formed with the saw, they are finished so as to fit exactly by files, fish-skin, &c., and then fixed down to the foundation by means of strong glue, being retained by a press until they are dry. The last stage of the process consists in smoothing and polishing them, which is done by rough fish-skin, sand-paper, and scrapers, followed by continual friction with oiled rushes, palm-pith, or rags. This work is principally employed to decorate ceilings, the panels of doors and windows, floors, and some of the household furniture. The woods chiefly used consist of sycamore, fig, walnut, olive, oak, ebony, mountain-ash, cedar, and pine-knots. Rosewood, mahogany, and such woods are seldom employed but in the houses of the wealthy.

Masons and Quarrymen.—Gravestones, millstones, fountains, and a few other articles constitute the chief work of the stonecutter, or mason. As in other trades, so he likewise sits upon the ground, and with his rude mason irons (pointed and chisel-shaped), picks, hammer, and saw, slowly fashions the stone to the required form. (a)—*Quarrymen*, in boring the stone, use an iron rod about four or five feet long, steeled at the end, which is grooved: they keep the hole full of water during the operation, turning the rod gradually round two or three times previous to ramming it down, or striking it with the hammer. After boring it is blasted with gunpowder in the usual manner.

Merchants.—The *travelling merchant* has few expenses: he lodges without cost, and from his frugal habits is enabled to keep his expenditure far below his profits.—The *resident merchant* (I mean the native) has no books, save one of common entry: no credits are given, no bills discounted, no bonds, nor even receipts; no fictitious capital exists, it is all ready money; he has no clerk, unless very wealthy; the box on which he rests his elbow contains at once his bank and counting-house. The office in which he carries on a large commercial business is but a shed.

Millers.—See "Corn Grinding and Threshing."

Money-changers.—The exchange fluctuates more than in Europe, and is influenced by large exportations of grain, bad crops, and disease among the silkworms. The average exchange is about 105 piastres to the pound sterling at Beirout; I have known it as low as 95 and as high as 117. When receiving or paying money, the money-changer employs a flat triangular board, having a rim on three sides, with the apex of the angle left upon for the money to pass out.

Mosaic.—This art is seldom exercised by the modern Syrians, except it its rudest form, or else in the execution of those elaborate scriptural illustrations which ornament the walls of the wealthy *Christians*, and the geometric designs so often seen in the audience-chambers of the sheiks and pashas. The foundation for the picture is formed of some durable stone, such as marble, or of several united by cement. The centre is hollowed out, so as to leave a depth of three or four inches, with a border or frame of the same width. The excavated surface is traversed by grooves, which vary from an inch and a half to two inches, being wider at the base than the apex; these, intersecting each other, form right angles, which are of infinite utility to the artisan. In this space the cement is poured in.—*The cement used by the ancients* consisted of one part of slaked lime and three parts of pounded marble; these were incorporated with water and white of egg. *The moderns*, considering that this cement hardens too quickly, have employed one part of slaked lime with three of powdered Travertin stone mixed up with linseed-oil, which is stirred and worked every day with a trowel. When first laid on, the mass is level, but soon swells up and requires the addition of more oil from day to day, to prevent it from becoming dry and useless. In the winter it is ready in about thirty days; in the summer, twenty days are sufficient to render it smooth and fit for use. The design having been chosen and sketched, the materials employed (which consist of glass, agate, cornelian, lapis lazuli, enamel, marbles, and pastes of different colours; various kinds of pebbles, crystal, &c.) are cut, and ground to the proper shapes and sizes by the usual lapidary's tools, and then imbedded in the cement, after which they are reduced to a level with the frame or border, and then polished in the usual manner.—The enamel mosaics (chiefly used for walls, ceilings, &c.), being formed into the requisite sizes and assorted into shades, are laid on in the following manner:—The cement is spread on the groundwork to the required thickness smoothly, and of the required size; the design is then transferred to the cement by means of the coloured enamel squares, or whatever shapes they may be, and struck with a small wooden mallet until their surfaces are level. As the cement remains soft for some time—fourteen to twenty days—the design can be altered at the pleasure of the artist. Any crevices that may exist between the pieces of enamel are filled up with pounded marble or enamel, mixed with wax, which penetrates by passing a hot iron over it. When the enamel has remained in its position for two months or ten weeks, so as to allow the cement to harden, the upper surface is ground down and polished by means of a flat stone and emery: this requires a very long time to accomplish, and is exceedingly laborious.

Patten-makers.—These men manufacture wooden pattens to protect the feet of bathers and their attendants from the heat of the bath floor, and also to keep the feet of the women from being soiled when engaged in their domestic duties. They are usually made of elm, walnut, or mulberry, with a plain leather strap to attach them to the feet. Those for the wealthy are often very costly, being inlaid with various woods, studded with silver nails, and having gold-embroidered straps studded with pearls and turquoises.

Pipe-bowls.—The manufacturer of *tchibouk*-bowls employs in their formation only a few wires, some small round sticks, and a pair of tweezers. Seated in the Oriental fashion, with a lump of moist and well-worked clay at his side

(a) Condensed from "Three Years in Constantinople," by C. White. 1846. vol. ii.

(b) When charcoal cannot be procured, they employ dried camels' dung.

(a) 1 Kings v. 15—18.

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(covered with a damp cloth when not in use), he takes a piece of it, and, by a few dexterous turns on his thumb, fashions the mouth and shoulder of the bowl; it is then pierced by one of the sticks, rounded off with a wire, pinched with the tweezers, and, finally scratched or marked with a sharp-pointed wire, is set aside to harden in the sun. Having remained until they have acquired a slight degree of hardness, they are baked in a kiln. Some bowls are richly gilt and embossed, but in that case are made of finer clay, and require more care in the baking.

Pottery-ware.—The manufacture of this ware is confined chiefly to such articles as water-jugs, which contain from a gallon to a gallon and a half, and water-coolers, which are permeable, and resemble the biscuit of our own potteries. The tools employed are nearly the same as those used at Jerusalem, in the time of the Prophet Jeremiah,(a) and the process of manufacture very similar. As it so nearly resembles our own method I shall not occupy space by describing it.

Saddlers.—The Arab saddle is of various shapes, altering with the time and place, from the hard wooden saddle of the mountain, to the soft and more common packsaddle for old men. The saddler manufactures everything connected with horse-furniture, bridles, cruppers, stirrups, &c., and forgets not to bedizen them with fantastic designs in gaudy-coloured leather, cloth, or silk, and glass beads, shells, metal buttons, &c. Then there are certain amulets, or charms, against the evil eye, made of leather highly ornamented with glass, embroidery, or stones, and the charm written upon a piece of paper; saddle-bags for wearing apparel; leathern bottles for water or other liquids; waist-belts to contain four or five pistols, with straps for sabres attached; and, last but not least, the courbash, or rhinoceros' hide whip.

Scribes (b) are men who gain a livelihood by copying edicts, accounts, records, proclamations, &c., or keeping the books of merchants; and are generally men of tolerable education, capable of writing and speaking five or six languages. They are distinguished by the inkstand, which is carried in the girdle. When writing, they are seated in the Oriental manner, and, holding the paper with the left hand, resting it on their knees, write from right to left. They bear the same relation there that a secretary does in England.

Shoemakers.—The soft, yellow sheepskin boots and slippers, or *papoosh*; the thick-soled shoes; heavy, thick, leather riding-boots; the elegant pearl-embroidered slipper for ladies of rank; and the black or red flat-soled shoes worn by labourers; are all manufactured by the Syrian votary of St. Crispin.

Soapmakers.—The soap manufactured at Damascus and Aleppo is a very inferior kind. Kelp mixed with lime is employed for the ley, and olive oil is added.

Sponge-fishery.—Beyond Djebail, or Jubeil, by the coast, there is a sponge-fishery, whence a great number of sponges of a fine quality are collected every year by some Greek sailors, who come from Syria, and are generally under French protection. A few are sometimes obtained off the town of Beirout, and another to the south of Beirout, between it and Sidon. The sponges are collected by means of a long iron fork, which the fisherman plunges into the sea, detaching them from the rocks; they are then dried on the beach.

Tanners.—The Syrian tanners dress the hides with *album græcum* and lime, and employ the bark of the sumach and valonia to complete the conversion of the skin into leather. Olive oil gives the last finish to the process.

Tobacco-merchants.—Latakia produces the most celebrated tobacco in the East, which undergoes a certain process there (that will be described hereafter when that town comes under consideration), and is then forwarded to the merchant, who sorts it into three classes:—1. That picked from the centre of the bales; 2. The next best in colour; 3. A mixture comprising the refuse of both. When tobacco is cut it is wetted and placed in an instrument resembling our chaff-cutting-machines, but very much smaller. It is then packed in waxed cloth bags, ready for use. This tobacco is used for smoking in pipes; but there is another species which is imported from Persia, called *tumbeky*, used for the *narguillas*, or water-pipes; it is, when pure, of a bright yellow colour, and in flakes.

Water-carriers.—These men, when employed in distributing water to the passengers in the streets, chant a short cry, lauding their orange-flower-water, raisin-sherbet, or plain water, as it may be, and accompany it with a ringing noise produced by striking the two metal drinking-basins together. Over their backs they have a pig's skin slung, containing the water; if it be sherbet, it is contained in a jar with a bunch of flowers or herbs at the top, the drinking-vessel being porous.

Water-skin Manufacturers.—The skins of goats or pigs, but generally the former, are stripped off whole except at the neck, and the holes at the legs and tail sewn up; they are stuffed out full, and strained by driving in small billets of oak wood, and then filled with a strong decoction of oak-bark or valonia for seven or eight days; the hair then becomes fixed, and the skin sufficiently tanned.

Weavers.—This trade will be described under the head of "Beirout," as it more particularly relates to that neighbourhood and Damascus.

(a) "Then I went down to the potter's house; and, behold, he wrought a work on the *wheels*. And the vessel that he made of clay," &c. Jer. xviii. 3, 4.

(b) "Then *wrote* Rehum the chancellor, and Shimshai the scribe," &c.—Ezra iv. 9. "Now, when the copy of King Artaxerxes' letter was read," &c.—Ezra iv. 25; Ezra vii. 6; Matthew xvii. 10; Mark xii. 28.

ON THE TREATMENT OF ERYSIPELAS AND OTHER FORMS OF CUTANEOUS DISEASE, BY A STRONG SOLUTION OF THE NITRATE OF SILVER.

By T. W. GARLIKE, Esq., Rickmansworth.

In bringing the present subject before the medical public I lay no claim to originality. The treatment of erysipelas by caustics or their aqueous solutions has been in vogue for many years past, both in Europe and America. In the year 1841 M. Velpeau recommended the use of a solution of the sulphate of iron to erysipelatous surfaces, and the acid nitrate of mercury has been tried by MM. Biett and Cazenave; but these remedies, like Baron Dupuytren's blisters, have not succeeded generally in the hands of the practitioner. At a late meeting of the Provincial Medical Association Mr. Higginbotham read a paper "On the Treatment of Erysipelas by a Saturated Solution of Nitrate of Silver," and has so ably handled his subject, that it is with much diffidence I approach the same path; however, as one remedy is not always equally efficacious in all hands, and as the cool English practitioner receives all bold and unpopular methods of healing with distrust or reserve, I shall confine myself to the practical bearing of the subject, and endeavour more particularly to impress my readers with the necessity for observing certain cautions in the use of this active application.

The remarks I have to make naturally resolve themselves into four divisions:—

1. The cases in which the solution of the nitrate will be found useful.

2. The cautions to be observed in the use of the remedy.

3. The method of preparing and applying the solution.

4. The physiological principles upon which the use of the caustic solution is advocated.

The Cases in which the Solution is useful.—I have found the strong solution of the nitrate of silver of eminent service in every case of erysipelas which has been confined to the skin, whether it has arisen epidemically or otherwise; nor is the influence of the remedy affected by the external circumstances under which it is applied: the idiopathic or traumatic origin of the disease being a question of no importance in determining the propriety of using the solution. It will also be found equally effective under certain restrictions in the plethoric and adynamic temperament; yet, perhaps, in no instance will its effects appear so manifestly in the light of a "specific" as in the wide-spreading idiogenic erysipelas of children: here the disease will frequently become arrested as if by the secret agency of a magic wand.

I have seen an acute epidemic sore throat, an inflammation involving the posterior fauces and soft palate, yield in a few hours after the application of the caustic.

With regard to the use of the argent. nitrat. in what, for distinction's sake, may be called the "*chronic*" eruptions of the skin, my practice warrants my recommending it in porrigo, erythema, psoriasis; certain anomalous tetter-like patches, scales, &c.; in the inflamed condition of skin surrounding the indolent ulcers of old people, and in tinea. The last-mentioned disease has been described by M. Gruby, a young Hungarian physician, as the development of a cryptogamous fungus in the skin, and which he calls "mycoderme." Should his theory with respect to this peculiar ring-like tetter be verified by future observation, the caustic would naturally suggest itself to the surgeon as the proper treatment.

The Cautions to be observed in the Use of the Remedy.—It is not to be wondered at that the sober practitioner feels heavy disappointment and dismay at the bedside of the patient when a favourite remedy, which has been vaunted as of universal power, is found wanting in its utopian attributes. Such has been the impression given at the failure of many excellent ways in treatment whose original advocates have been mere theorists, or, perhaps, young physicians unskilled in the practical part of their art. I now propose to bring before my readers certain circumstances which have attracted my attention in using this active application, and have served as guides to me in the sick-room.

When we regard the functional analogy which exists between the skin and mucous membranes it does not seem improbable that a metastasis should take place between these surfaces; accordingly I have frequently known a gastro-enteritic affection suddenly appear on the cessation of the external inflammation, and this has been the case occasionally in other tissues; but I must here add, that such metastasis have ever been of a mild and yielding kind. In erysipelas of the head it is well known that delirium is not an unfrequent concomitant, and, however successful the caustic may have been in subduing the erysipelas, it will not always follow that the delirium vanishes simultaneously; in this instance the effect will survive the cause, and yet the mental affection will exhibit no increase when the cutaneous phlegmon has been overcome.

The solution of the lunar caustic is decidedly inadmissible in phlegmonous cellular inflammation; its use has always appeared to me to stimulate the already irritated vessels which lie below its reach to an increased morbid action.

It is scarcely necessary that I should urge the propriety of associating with the plan a vigilant constitutional treatment. I may still observe that certain idiosyncrasies are to be kept in view, and that the asthenic patient will be found more amenable to one comprehensive system of cure than the plethoric.

The Method of preparing and applying the Solution.—On this head my directions will be few and concise. I immerse a drachm of the argentum nitratum in an ounce of distilled water, the phial being covered with paper to prevent decomposition by light; a few drops of nitric acid will facilitate the solution. The water being fully charged with the salt, the application is made in the usual way with a camel-hair brush, care

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being taken to cover the entire diseased surface, and even the skin beyond the erysipelatous blush. Let the painting be repeated every night and morning until the whole disease is under its influence.

The Physiological Principles upon which the Use of the Caustic Solution is advocated.—The single coat of a capillary vessel closely resembles in its structure the muscular tunic of an intestine, and so far as its vital or functional energy is concerned is dependent on a *tonicity*, or elastic force within it, for the duties which it has to perform (a). When the plasma of the blood has been thrust during the inflammatory stage into the sensitive capillary, and the tone of the vessel has become exhausted by the repeated irritation of an abnormal exudation, a dilatation of the vessel follows, and this relaxed condition so completely suspends action that it has been very aptly called a state of paralysis. What dominion the motor or sensitive nerves exercise reciprocally over such morbid processes, it is somewhat difficult to determine, yet the question has been well and confidently treated by Henle, Billing, Wharton, Jones, and others. It only remains, however, for me to state that the capillary vessel is possessed of a vital contractility, analogous to that of involuntary muscular fibre; and that it is of the first importance to bear this physiological truth in mind in our estimate of the value of the remedy of which I am treating. Neither should it be forgotten in this place that our remedial agent has already been said to apply only to certain inflammatory effects on the thin cutaneous or mucous textures of the body. Immediate proximity, if not positive contact, with the affected tissue is necessary to ensure success: for the deeper cellular structures, however much they may sometimes have appeared to participate in the happy result, are really out of the certain reach of any such local application.

M. Desmarres (*Medical Gazette*, March 10, 1843) has aptly compared the action of caustics to that of intense cold; and, thus carrying out the analogy, it is easy to conceive that the effect of a weak solution of nitrate of silver might resemble that of cold water, the application of which to inflamed surfaces would, if its astringent properties were not sufficiently strong, leave the vessels more powerless than before. It is, therefore, obvious, when acting on these principles, that we should raise our solution of the caustic to a point of strength capable of stimulating the languid energies of the vessels; since our efforts are, as I conceive on physiological grounds, to be directed to the restoration of vital tonicity; and while, on the one hand, we avoid the minimum of astringency, we should be equally cautious on the other of approaching the maximum of caustic power, for the establishment of an eschar would be fatal to our purpose.

CASE OF ENORMOUS CALCULUS IN THE COLON PRODUCING DEATH BY PERFORATION OF THE INTESTINE.

Communicated by R. F. SNAPE, M.R.C.S.E. and L.A.C. Lond.; Honorary Surgeon to the Bolton Infirmary and Dispensary.

John Rushton, aged 20, admitted into the hospital of the Bolton Workhouse on Wednesday, Oct. 6. Piecer; of steady habits; has been ill since last March, during which time he has more than once been in the above hospital for a week or two, and then again able to resume his work. Previous to March had always enjoyed good health, though often troubled with a constipated state of the bowels, requiring the frequent use of purgative medicine; a more obstinate attack of which than usual occurring at the above time, attended with considerable pain, led him to apply for medical aid. He states that he was soon relieved under a course of cathartic treatment, but had again and again to apply, owing to his attacks becoming more frequent and severe. This state of things continued until I saw him on Oct. 6, when he was complaining of the obstinate state of his bowels, attended as before with pain, and drew my attention to a large hard tumour, situated in the *left hypochondriac* region, which was quite immoveable. There was no tenderness on pressing the abdomen generally; tongue clean; pulse 80; appetite good; no thirst; urine natural in quantity, but depositing a sediment of lithic acid. I ordered a farinaceous diet, a bran poultice to be applied to the abdomen, and exhibited castor-oil emulsion, with a little hyoscyamus, every four hours. On visiting him the next day, I found my treatment had had the desired effect: the bowels had been freely relieved; pain had vanished, and he stated that he felt better than he had done for six months. Upon examining his abdomen I could *not now find even a trace* of the tumour, which led me to hope that it had been simply a collection of hardened fæces, which were now got rid of. For several days he continued taking the emulsion once or twice, which had the effect of keeping him (as he said) quite well.

About a fortnight after his admission he again complained to me of not being so well, having for some days given up taking his medicine. Upon examining his abdomen now, I again felt the tumour of the same size and hardness as before, but situated in the *umbilical* region. I resorted to the same treatment which had succeeded before, giving, in addition, hyd. c. cret. gr. v., om nocte. The next day I discovered the tumour in the right hypochondriac region, but his bowels had acted properly, and he stated that he felt quite well. Day after day I found the tumour in some fresh spot corresponding to the course of the colon, until Thursday, the 28th ult., when again it was not to be felt, and my patient expressed a desire to go out and resume his work. I advised him to stay a few days longer, to which he assented, although he said "he felt quite well and able to do anything." On visiting the hospital on Monday, Nov. 1, I found him in the most imminent danger; countenance collapsed, and bedewed with a cold clammy perspiration; lips livid; pulse small, and very rapid; abdomen highly tympanitic, but could bear a considerable amount of pressure; he complained of pain, but not to any great extent; no sickness; tongue dry, and coated with a thick fur; urine scanty, and containing a quantity of blood. It was evident that perforation of some viscus had taken place; and, upon inquiry, the nurse told me that he had begun to be worse that morning about eight or nine o'clock, and the symptoms had been rapidly increasing in intensity up to the usual hour of my visit, which was twelve o'clock. I ordered turpentine to the abdomen, and gr. ss. doses of opium every hour, &c.; but the poor fellow never recovered from the collapse, and died at three o'clock the same day.

Sectio Cadaveris sixteen hours after Death.—On exposing the cavity of the abdomen, I found evidences of the most intense inflammation of the entire peritoneum; the omentum and bowels were closely matted together by albuminous fibrine, and the parts highly injected; there was a copious effusion of sero-purulent matter, with flatus of albumino-fibrine, in the cavity of the peritoneum, mixed with feculent matter. Upon tracing the intestines, I found marks of long-standing disease in the duodenum and colon, but especially in the latter, which was much thickened and ulcerated through its whole course, and at the commencement of which I discovered a large circular opening through which the fæces had escaped. Just above its sigmoid flexure I found lodged an enormous calculus, measuring 10½ inches in its long diameter and 8½ inches in its short, and which with difficulty could be moved along the course of the colon; the other intestines only bore signs of recent inflammation, as before stated. The liver was congested, and the ductus communis choledochus enormously distended; the gall-bladder full of thin bile; the kidneys were *very much* congested, but natural in size, and healthy in structure; the spleen healthy; the bladder healthy and empty. I have not yet analyzed the calculus, but I think I may fairly conclude, from the foregoing examination, that it first proceeded from the gall-bladder, through the duct, to the duodenum, and thence ulcerated its way direct through to the colon, in the position where these two bowels lie in contact, and, being detained in the colon from some obscure cause, reached its enormous size from depositions of phosphatic matter effused by the diseased mucous membrane. I could not demonstrate this satisfactorily, owing to these two intestines giving way upon the most delicate handling. There are many interesting and extraordinary features in this case. The easy and complete manner in which the bowels obeyed the action of medicine, for, notwithstanding the obstruction, no hardened fæces were found in the intestinal canal, and none had escaped into the cavity of the peritoneum—the curious transition of the calculus from one portion of the colon to the other, frequently in a contrary direction to the vermicular action of the intestines—the slight constitutional irritation and comparative absence from pain which the presence of so large a foreign body, and so much disease consequent thereupon, occasioned—the inability to point out any period when he had suffered from an attack of biliary calculi, which he must have done, if I may judge from the enormous size of the ductus com. choled., into which I could with ease introduce three fingers, and the retention of the calculus in the colon—are all points worthy of observation.

(a) "Dr. J. Hughes Bennett on Inflammation." 1844.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meeting of Oct. 25; M. BRONGNIART in the Chair.

TREATMENT OF TYPHOID FEVER.—The readers of the *Medical Times* may recollect that some weks since a communication was made to the Institute by Professor Serres, relative to the good effects of the black sulphuret of mercury in the treatment of typhoid fever. (Vide *Med. Times*, vol. xvi., p. 595.) M. Serres had observed the complication of this disorder by smallpox, and, in his remarks to the academy, stated that he had employed his method in such cases of complication with signal success—a test of its value which the learned professor considered as very important. In answer to these observations, Dr. Tessier forwarded some propositions tending to show that typhoid fever is an essential malady, which never coincides with smallpox in the same subject; also, that no disease can be admitted to exist, constituted by two such elements as typhoid fever and variola; this pathological compound was a mere chimera. Dr. Tessier further stated that the treatment of typhoid fever by the black sulphuret of mercury, or by mercurial inunctions, was based upon no positive indication, and constituted merely an empirical method. At the same meeting Dr. Mazade, of Anduze, presented the history of four cases of typhoid fever successfully treated by mercurial inunctions, which had, according to the author, produced a remarkable improvement upon the patients in the space of two days.

EXTERNAL HEMORRHAGE.—ERGOTINE.—In a case of gangrene of the dorsal aspect of the foot, attended with hemorrhage, M. Petrequin applied ergotine with complete success. In a second instance, hemorrhage having followed a plastic operation performed upon the face by M. Bonnet, a solution of the same substance was applied with the same result.

ACTION OF CHLORIDE OF SODA UPON THE STOMACH.—M. Bardeleben, prosector at the University of Giessen, presented some remarks on the local action of common salt upon the gastric mucous membrane. This memoir not being completed, we will postpone its analysis until M. Bardeleben forwards its termination.

ACADEMY OF MEDICINE.

Meeting of Oct. 26; M. BEGIN in the Chair.

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M. Dubois, of Amiens, read a report in answer to a letter from the Minister of Public Instruction, inquiring into the utility of a publication of "A Library of the Greek and Latin Physicians," under the direction of M. d'Aremberg. The reporter recommended strongly to the academy to approve of the projected work.

M. Malgaigne strenuously urged the utility of the publication, and deprecated the great vacuum existing on the subject in the public libraries.—The report was adopted.

LITHOTRITY.

The adjourned debate was resumed, and M. Ségalas read a paper in answer to M. Roux's remarks. The same arguments already laid before the academy were again repeated. An extraordinary meeting having taken place on Saturday, Oct. 30, M. Civiale endeavoured to establish the accuracy of his statistical tables, contested by M. Velpeau. He concluded his paper by stating that the discussion had attained one great object, namely, that of proving that, whatever might be the opinions dictated by private interest, the medical public at large was now completely convinced of the advantages of lithotrity.

M. Leroy d'Etiolles, a stranger to the academy, obtained permission to make some remarks upon lithotrity. The great question at issue, since the beginning of this interminable discussion, was the value to be attributed to the statistics brought forward. Now, they might be considered under two very different aspects. M. Civiale, rejecting all the cases which had terminated fatally after exploration of the bladder with lithontriptic instruments, contended that those cases only should be taken into account in which the operation had been completed. The academy, on the contrary, seemed disposed to adopt another view, and to throw into the balance of mortality, also, the cases in which death had resulted from exploration of the bladder for diagnostic purposes, with the instruments of crushing. In the first instance, M. Civiale acknowledged only a mortality of two per cent.; in the second, his academical adversaries found it amounted to twenty per cent. Now, M. Leroy was of opinion that M. Civiale's method of establishing his tables was not fair, inasmuch as it was not right or proper to introduce *lithontriptic* instruments into the bladder merely to examine its cavity and the calculus. To ascertain the presence of the latter, its shape, density, &c., M. Leroy asserted that a common metallic catheter was far preferable to the lithoclast, and that, if the latter instrument was used, the surgeon who improperly employed this method of diagnosis, should be justly considered answerable for the ill consequences which were likely to follow.

The meeting adjourned after five o'clock.

POISONING BY ARSENIC.

Notwithstanding all that has been said of the diagnosis and treatment of the "Praslin" case, we deem that the following observations, together with the severe but just editorial remarks in "Les Annales de Thérapeutique" may still be found deserving of notice.

CASE.—On June 18, 1847, Dr. Linoli, of Pietra Santa, was called upon to attend a girl, aged fourteen years, who was labouring under violent abdominal pain, obstinate vomiting, cramps, and syncope. The matter rejected from the stomach was of a greenish colour, which led at first to the belief that the patient was suffering from the ingestion of a salt of copper. After much difficulty the young lady explained that, four hours previously to the first appearance of the gastric symptoms, she had swallowed a considerable quantity of green wafers, some of which were still lying upon a table in the room. Some olive oil having been exhibited, the vomiting of green matter returned. It was then ascertained that these wafers were coloured with arsenite of copper, which communicated to them its grass-green hue. Syncope, cold perspiration, and cramps continuing with obstinacy, Dr. Linoli prescribed ʒj. of liquid laudanum, in ℥j. of cinnamon-water, which was swallowed in the space of ten minutes. An immediate improvement took place; but soon after the symptoms again made their appearance in an alarming manner; and the same mixture was again exhibited, ʒss. of laudanum having been taken within three hours; at the expiration of that time the effects of the poison had totally vanished. The following night was tranquil, but, arsenite of copper existing in the motions, it was thought advisable to prescribe some castor oil. Solid food and cordial wine were also ordered, and from that time forward the patient gradually recovered, no return of the symptons being observed.

EDITORIAL REMARKS.—This *sublime* observation, published in the month of July, and, therefore, previously to the deplorable events of the "Praslin" case, honours equally humanity, science, and the imperishable genius of the two great founders of the Italian school: glory, therefore, be rendered to their successors, who have manfully broken through the wretched "routine" which still cruelly enslaves the profession in other countries, and who have raised themselves to the highest pinnacle by this cure, which is little short of resurrection. Nothing but the most profound conviction, based upon experience and knowledge, could have given Dr. Linoli the courage to exhibit, in the space of a few hours, half an ounce of laudanum, together with four ounces of cinnamon-water, to say nothing of the small quantity of alcoholic fluid and of cordial wine, which were also given to the patient. It is owing to this noble boldness, inspired by true science, that another victim was snatched from the jaws of death. In this paper ("Les Annales de Thérapeutique") we have already recorded a large number of cases of the same nature; and now-a-days none but ignorant mountebanks and unworthy flatterers can still continue to sacrifice the life of poisoned persons to the criminal system of chemical neutralization, of antiphlogistical treatment, and of "so-called" diuretics—a system brought forth by men foreign to the clinical art, and the consequences of which have hitherto been equally fatal to mankind and to medicine. Let this observation be compared with the analogous, but less severe, case of the Duc de Praslin, and it will be acknowledged that we were right in asserting that this case also might have been certainly cured (if properly treated); it must be also admitted that the treatment employed constituted, clinically speaking, a second intoxication, having brought about a fatal issue which, in all probability, would not have occurred had the patient been left to the efforts of nature.

LIGATURE OF THE ŒSOPHAGUS.—M. Sédillot, of Strasbourg, relates the following interesting experiment:—In a dog, when a ligature has been placed around the œsophagus, the external wound being united, in a few days the thread falls into the stomach, and the œsophagian tube is restored to its functions spontaneously by the effusion of plastic lymph around the ligature. A stricture of the tube persists, but food can be conveyed into the stomach a few days after the operation. Mr. Lawrence had already shown that this occurs also in the small intestine of the dog; and M. Sédillot inquires if the ligature of the œsophagus might not with some chances of success be applied to man in the removal of certain tumours or strictures of the duct,—*Strasbourg Medical Gazette.*

TREATMENT OF CHOREA (ST. VITUS'S DANCE).—A little girl, aged three years, became suddenly affected with symptoms of chorea immediately after a fright; the disease persisted until the age of nine, with an interruption of six months, which could not be accounted for. The morbid symptoms consisted in an invincible tendency to run, which ceased only when, the legs becoming crossed, further progress was impossible. The patient then would bend backwards and forwards, in a manner closely resembling the varieties of tetanus called opihstotonos and emprosthotonos. These phenomena recurred several times each day in the form of short but violent attacks. Valerian, oxide of zinc, and cold baths had been used without success. The patient was then admitted into the Hospital of Dijon, and Dr. Salgues again gave a fruitless trial to the oxide of zinc; cold effusions on the spine, barèges, baths, and other measures were also unsuccessfully tried. Tartar emetic was afterwards exhibited in doses of six grains daily; the first dose of the medicine produced abundant vomiting and diarrhœa, but from that time forward it was perfectly tolerated by the stomach, no other effect being noticed except loss of appetite, and the total cessation of the choreic symptoms. This treatment was continued for one week, and on the fourth day ten leeches were applied to the neck for the purpose of removing slight headache. The patient recovered completely.—*Revue Méd. de Dijon.*

ARTHRITIS.—The treatment of apyretic arthritis, affecting one joint only, is often surrounded with considerable difficulties, on account of the insufficiency of the measures resorted to during the chronic stage of the complaint; thus we have seen M. M. S., physician of Hôpital Beaujon, recently confined during more than two years with a rheumatic arthritis of the knee, which at last has terminated in partial ankylosis. Similar instances are daily observed, both in medical and in surgical wards. The emptiness of ideas on this subject has even been carried to that degree, that, by one surgeon, immobility of the extremity has been proclaimed the sovereign remedy: a method equally ancient and inefficient, and which is only the translation of that ridiculous system of "expectation," *i. e.*, starvation and water. Immobility does not, rigorously speaking, constitute a remedy; it is a negative measure, a condition which facilitates the use of appropriate treatment. Such are the first remarks with which the editor of the "Annales de Thérapeutique" ushers in an article on the treatment of chronic arthritis by frictions upon the skin with the nitrate of silver ointment. M. Jobert has been for the last few years in the habit of using this ointment in various diseases with the greatest benefit. In erysipelas, and also in arthritis, he recommends powder of nitrate of silver to be incorporated into a certain quantity of lead (4, 8, 12 grammes to 32), and the ointment thus formed he looks upon as a revulsive, which produces its good effects very much after the fashion of blisters. In a paper published by M. Biéchy, of Schélestadt, it is experimentally proved that, if the cauterizing power be taken from the nitrate of silver by dissolving it before its addition to the lead, its action will be increased, because the drug will be more easily absorbed. This is entirely a different view of the case from that taken by M. Jobert and others. The proportion recommended by M. Biéchy is one-eighth; but the same method is used at the Hôtel Dieu with much success by M. Guerard, and his ointment contains a fourth part of its weight of nitrate of silver. Each diseased joint is covered with four or six grammes of this compound, and a large poultice is afterwards placed upon it in order to facilitate absorption. The epidermis blackens in a few days, but the treatment is continued until a cure has been obtained. This method constitutes a valuable resource in many instances where other remedies cannot be employed, and deserves the confidence of the profession.—*Annales de Thérapeutique.*

On Wednesday, November 3, the opening meeting of the Faculty of Medicine of Paris will take place. The address will be delivered by Professor Bérard, and we hope in our next communication to be enabled to give a sketch of his discourse. M. Andral will also, during the week, resume the lectures on general pathology, the first part of which we published last winter. We will continue to forward them to the readers of the *Medical Times*, as they present a complete view of the state of general pathology in France at the present day.

CHOLERA.—Dr. Bruno Taron, a physician of Marseilles, states in the *Gazette des Hôpitaux* that, having been seized with the symptoms of cholera during the second epidemic at Marseilles, he was completely relieved by the inhalation of ether.

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The *Impartial du Nord* asserts that a case of cholera has been recently observed near Valenciennes, but the news requires further confirmation. The Minister of Commerce has commissioned three physicians to study the progress of the cholera in Moscow, Odessa, and Trebizonde: The gentlemen appointed are Drs. Beau, Contour, and Monneret.

Vinné (de Nevus), a quack dentist, accused of having abused the persons of two young women whom he had first rendered insensible by the inhalation of ether, was found guilty by the Cour d'Assises de la Seine, and condemned to the hulks for six years.

D. M'CARTHY, D.M.P.

American Statistics in Midwifery.—Dr. George Metcalf, of Massachusetts, has published the following interesting facts in reference to the proportion of marriages of females who bear children, their ages at the time of marriage, and the manner in which they severally passed through the period of childbirth. The number of deliveries recorded are 927, which gave birth to 932, there being five cases of twins. Of the 927 mothers, 914 were married, and thirteen were not; thus furnishing a ratio of 1·4 for every illigimate to every 100 children born in wedlock. Of the mothers having illegitimate children, two were widows, each with a family of five children—one belonging to the upper, the other to the lower, ten thousand in society. Of the others, one was forty-three, and the remaining ten were all under twenty-three years of age. Of the whole number of mothers their ages, when married, were ascertained in 568 instances.

AGES OF MOTHERS WHEN MARRIED.

Age	14	15	16	17	18	19	20	21
No. of mothers. .	3	3	23	61	70	56	73	58
Age	22	23	24	25	26	27	28	29
No. of mothers..	43	41	40	29	23	14	10	4
Age	30	31	32	33	35	36	38	41
No. of mothers..	6	4	2	1	1	1	1	1

The united ages of 568 mothers amount to the sum of 11,991 years; thus furnishing the sum of twenty-one years and eleven-hundredths as their average age when married. The perpendicular lines divide the preceding table into six equal periods of four years each. The number of women married in each of the periods was:—In the first, 90; in the second, 257; third, 153; fourth, 51; fifth, 13; sixth, 4. The chances of marriage during the six periods were—in the first, 16 per cent.; second, 45 per cent.; third, 27; fourth, 9; fifth, 2·3; sixth ·7 per cent. Of the 927 cases, the age of the patient when delivered was noted 591 times. The ages of the different women extended over a period from fourteen to forty-six years.

AGES OF 591 MOTHERS WHEN DELIVERED.

Age	14	15	17	18	19	20	21	22
No. delivered ..	1	1	6	20	25	26	29	40
Age	23	24	25	26	27	28	29	30
No. delivered ..	32	34	25	35	44	26	20	36
Age	31	32	33	34	35	36	37	38
No. delivered ..	18	22	20	18	17	24	14	13
Age	39	40	41	42	43	44	45	46
No. delivered ..	11	11	4	7	4	5	1	2

The number of deliveries in each of these eight periods were:—28 in the first; 120 in the second; 126 in the third; 126 in the fourth; 78 in the fifth; 68 in the sixth; 33 in the seventh; 12 in the eighth period. The chances of pregnancy were:—5 in the first period; 20 in the second; 21 in the third; 21 in the fourth; 14 in the fifth; 12 in the sixth; 5 in the seventh; 2 in the eighth. The whole number of times which each patient had been pregnant was ascertained in 916 cases. 244 were first pregnancies; 197, second; 141, third; 111, fourth; 80, fifth; 56, sixth; 28, seventh; 17, eighth; 13, ninth; 10, tenth; 8, eleventh; 4, twelfth; 2, thirteenth; 2, fourteenth; 1, sixteenth; 1, seventeenth; 1, twentieth. Thus the average pregnancy of each were three and a fraction. In 924 instances the duration of labour was noted—98 were one hour in labour; 38, two hours; 24, three hours; 33, four hours; 29, five hours; 74, six hours; 29, seven hours; 63, eight hours; 29, nine hours; 39, ten hours; 10, eleven hours; 149, twelve hours; 20, thirteen hours; 12, fourteen hours; 12, fifteen hours; 13, sixteen hours; 17, seventeen hours; 28, eighteen hours; 5, nineteen hours; 12, twenty hours; 4, twenty-one hours; 9, twenty-two hours; 5, twenty-three hours; 136, twenty-four hours; 4, twenty-five hours; 2, twenty-six hours; 3, twenty-seven hours; 7, twenty-eight hours; 4, twenty-nine hours; 13, thirty hours; 1, thirty-one hours; 5, thirty-two hours; 2, thirty-three hours; 3, thirty-four hours; 32, thirty-six hours; 1, thirty-seven hours; 11, forty hours; 1, forty-one hours; 4, forty-two hours; 2, forty-seven hours; 17, forty-eight hours; 1, forty-nine hours; 2, fifty hours; 5, fifty-six hours; 4, sixty hours; 2, sixty-five hours; 1, sixty-six hours; 1, sixty-seven hours; 1, sixty-nine hours; 1, seventy hours; 2, seventy-two hours; 1, eighty-five hours; 1, ninety hours; 1, ninety-six hours. Of 838 cases noted, flooding occurred in 27 cases only:—Of these 27 cases, five occurred during labour and before the birth of the child; fifteen after the birth of the child and before the delivery of placenta; and seven after the delivery of the placenta. The flooding before the birth of the child ceased upon the rupture of the membranes. That after the birth of the child and before the expulsion of the placenta, was speedily checked by the delivery of the placenta, or soon after, by the use of opium, acetate of lead, ergot of rye, &c. In no case was the hemorrhage excessive. Convulsions only occurred in two instances, and puerperal fever in twelve patients. In 23 cases of protracted labour the presentations were — of the vertex 69·6 per cent.; 4·3 per cent., one foot; 8·7 per cent., both feet; 8·7 per cent., breech; 4·3 per cent., face; 4·3 per cent., face to pubis. In 912 instances — 874 were vertex presentations; 13, breech; 9, feet; 1, foot and knee; 1, knee; 2, face; 8, face to pubis; 1, placenta; 3, funis; 20, unknown.

Ratio of Instrumental Deliveries by different Accoucheurs.—In one case in every thirteen, Dr. Caus, of Dresden, used instruments; one in nine, Dr. Ritgen, Giessen; one in fifteen, Dr. Klugé, Berlin; one in twelve, Drs. Minden and Merrem, Cologne; one in thirty-five, Prof. Andrée, Breslau; one in twenty-eight, Dr. Naegele, Heidelberg; one in five, Dr. Voigtel, Magdenburg; one in thirty-six, Dr. Kustner, Breslau; one in nine, Dr. Siebold, Marburg; one in ninety-six, Dr. Boer, Vienna; one in 183, Madame Boivin, Paris; one in ninety-eight, Dr. Merriman, London; one in 158, Dr. Bland (West. Gen. Dispen.), London; one in eighty, Dr. A. B. Granville, do. do.; one in ninety-nine, Dr. Beatty (New Hospital), Dublin; one in 162, Dr. Clarke, Dublin; one in 114, Dr. Collins, Dublin; one in 187, Dr. Metcalf, Mendon, Massachusetts.

A very early Human Ovum.—Dr. Middleton Michel was consulted by a gentleman on behalf of his wife, in consequence of her having a slight sanguineous discharge, attended with much pain, which had greatly inconvenienced her, then nursing a child at the breast. A clot of blood of singular appearance, that had been eliminated, had also been discharged, which excited considerable curiosity. This was supposed to be an ovum not more than three weeks old, and was submitted to a careful examination. A very short contact with alcohol brought the condition of this little ovum very plainly to view, and at once pointed out the fairest resemblance to the ovum in the uterus of a rabbit. Indeed, a blastodermic formation had already taken place. The vitelline membrane had disappeared; the chorion, which must have somewhat advanced, had been left behind, for around the ovum hung an araneous structure, which appeared to be the incipient bonds of connection with the chorial covering, from which, in all probability, it had been removed. Though this flocculent film existed more particularly on one side, it is not certain whether this corresponded to a part of the chorion. Through the transparency of the ovum could be distinguished the inner layer of the blastoderma, as an encased sphere, forming the umbilical vesicle. In turning over the ovum, there appeared to be on one side a thickening of its structure, as if a bit of organizable lymph was connected with it just at this spot; but on cutting through and reversing the outer layer, the appearance proved to correspond with the first and earliest condition of the embryon. The umbilical vesicle towards the embryon was but slightly constructed; this was its principal feature, no vascularity being perceptible. The embryon had advanced in development further than the *nota primitiva*, or *tache embryonnaire*, as it exhibited a cephalic and caudal extremity. The umbilical vesicle extended widely on the anterior surface of the embryon, but nothing could be discovered which indicated the presence of an alimentary canal; consequently, no allantois was as yet found. On the lateral surfaces no sign of thoracic or abdominal tubercles was discoverable. The ovum was evidently at that period of development in which the outer layer of the germinal membrane begins to fold itself over the back of the embryon to constitute the amnion. It was at first supposed not to have commenced, but on "tilting" the membrane upwards with the point of a needle, to bring the light to bear on the cephalic extremity, a nebulous outline could then be observed following its convexity a little distance backwards, which was plainly the fold in question. It had advanced so little over the embryon, that much of its back laid bare against the coagulum of lymph already mentioned; the head of a small pin could here pass beneath the cephalic hood. The caudal hood adhered to the coagulum, and consequently was not interfered with, lest the specimen might be injured. Here is the most beautiful example of human development ever seen—unexceptionably similar to other species of ova at the same period of their changes. From the rapidity of development after the egg reaches the uterus, the present ovum could not have sojourned more than from sixty to eighty hours in that cavity, as it had advanced but little further than the unfolding of the blastoderma.

Amputation above the Shoulder-Joint. — Dr. David Gilbert, of Pennsylvania College, Philadelphia, was called to attend the Hon. J. Wagonseller, M.D., in consequence of enlargement of the left shoulder and parts adjacent. Eleven months previously he had been thrown off a waggon, and the whole force of the fall was expended on the shoulder. The effect was severe contusion, without fracture or dislocation. The tumefaction was never entirely subdued; the remaining enlargement and inflammation resembling ordinary chronic rheumatism. The functions of the limb became gradually impaired. After a violent effort to use the arm on one particular occasion, great tumefaction and inflammation succeeded, which, however, yielded after a few weeks of local and general treatment. Shortly after, the shoulder began gradually to enlarge, till it attained an enormous size. As no local applications appeared to produce any benefit, amputation was resolved on, and performed in the following manner:—The patient was placed on his right side on a large dining-table, with the leaves down. An assistant holding the arm, the operator standing above and behind the diseased shoulder, commenced an incision at the posterior border of the axilla, using a large-sized scalpel, and extending it upwards one inch above the highest portion of the spine of the scapula. The next incision commenced where the first crossed the spine of the scapula, and extended downwards and forwards to the point of the shoulder, thence upwards and inwards along the lower edge of the clavicle to the extent of the outer third of the latter, and then upwards one inch above its superior margin. The triangular flap thus formed above the shoulder was dissected upwards, and the clavicle, inside of its outer third, isolated. A retractor was passed under it, and the bone thus exposed was divided with the straight edge of Hey's saw. The skin, posterior to the first

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incision, covering the process of tumour which extended backwards over the dorsum of the scapula, was now reflected backwards, and the latissimus dorsi and teres major muscles divided beyond the limits of the posterior extension of the disease. The infra and supra spinati muscles were next cut across, and the spinous immediately behind the acromion process, and the neck and body of the scapula exposed. The spinous process was cut obliquely from behind, forwards and inwards to the neck of the scapula, with the common amputating saw. The neck, with part of the body of the scapula, was then sawn through close to the spinous process, with a long narrow instrument provided for the purpose. All the bony connections being now severed, an incision with a small catlin was commenced at the axilla, and carried forwards and upwards through the skin and pectoralis major, so as to expose the axillary artery, which was promptly secured; then upwards under the clavicle, and outwards under the coracoid process, and head and neck of the scapula, dividing all the remaining attachments; and the operation was concluded. The external mammary was the only artery requiring ligature besides the axillary. The bleeding from the wound was principally venous, and was about ten ounces. The surface of the wound was carefully examined, and all suspicious tissues and remaining lymphatic glands were removed. The operation lasted fourteen minutes, and at its commencement the axillary artery was compressed, where it passes over the first rib, with a compress and letter-seal of a large size. The integuments were brought together and secured with five sutures and straps of adhesive plaster, over which lint, wet with cold water, was placed, and secured by a roller. The pulse, at the conclusion, was 120. The patient recovered without unfavourable symptoms.

Osteo-sarcoma of the Lower Jaw.—Operation.—Dr. Sims operated upon a negro man, sixty-eight years of age, in consequence of a tumour which had appeared two or three years before at the symphisis, just at the junction of the lip and gum. It was painless, grew very slowly, till it embraced nearly the entire body of the bone; the third molar tooth bounding its limits on the right, while it extended quite the angle on the left side. The teeth were loose and greatly displaced. The mouth of the patient being of enormous size suggested the idea of removing the bone in the following manner:—With a long narrow sharp-pointed bistoury a puncture was made at the base of the jaw, immediately under the place of the second molar, on the right side, running the knife flatwise into the cavity of the mouth, between the cheek and the bone, and as close to the latter as possible. One end of the chain-saw was now passed along the blade of the knife, or rather an eyed tube armed with a ligature previously attached to the saw, and the knife withdrawn. It was again introduced through the same external opening, but was now carried into the cavity of the mouth by thrusting it up on the inside of the bone between it and the tongue. Through the new channel, the outer end of the chain-saw was passed, and both ends drawn till the middle of the saw rested against the base of the bone, while the ends hung out at the left corner of the mouth. Thus the saw was fitting snugly around the bone at the expense of a puncture of not more than a quarter of an inch long. The jaws were now opened to their fullest extent, and the left angle of the mouth widely retracted, while the saw was brought across the dorsum of the tongue, and the bone quickly severed by sawing from without inwards, and slightly upwards. As soon as the bone was divided the instrument was liberated by clipping the superimposed gum with scissors. In like manner the bone was divided on the left side; but, as it had to be cut at the angle, to get clear of diseased structure, the saw had to be passed from within, outwards and downwards, its two ends hanging out at the external opening just under the angle, and thus the bone was easily divided from above, downwards, and backwards. The next step was to dissect the lip, chin, and cheeks, from this loose diseased mass, turning the lip down under the base of the bone. After liberating the right side of the bone, getting it on the outside of the angle of the mouth, so that a lever was made of it, the operation was finished with great care. By rotating it inwards on the axis of the left side, it was easy to separate the attachments from the outer surface; and by reversing this movement it facilitated greatly the dissection from the muscles of the tongue and throat, while traction brought it so far out that it was with facility separated from the soft parts at the angle. The cavity lately occupied by the diseased parts was then filled with pledgets of lint wetted with creasote-water. The only dressing used was a piece of pasteboard, soaked in warm water, and moulded on to the chin of a healthy man, so as to form a perfect encasement of the whole inferior maxillary region, which, being applied, was sustained *in situ* with a proper bandage. The patient speedily recovered.

Incision of the Os Uteri during Parturition.—Dr. Buckingham attended a woman of large frame, somewhat fleshy, during her confinement, which was her third. Her two previous ones had been protracted and difficult—the last attended with hemorrhage. In this, her third labour, the pains were so severe as to prevent satisfactory auscultation. The fœtal head presented with the occiput to the pubes, the left parietal protuberance being towards the os uteri. This was unyielding near the vulva, and dilated to nearly the size of a crownpiece. At the right anterior part there appeared to be a cicatrix extending upwards and outwards. The vagina was perfectly moist and distensible. All attempts to bring the head in a more favourable position was unavailing. The head advanced slowly, the pains being very forcing, when the head eventually passed through the outlet, bringing before it the anterior part of the uterus, and resting upon the distended vulva. The perineum was stretched to the utmost. The pains continued forcibly, and there was evidently no time to be lost. The head of the child was pressed back with one hand of the operator during violent pains, and with the other the blade of a lancet was slid sideways within the os uteri, and, slightly turning it, incised the posterior part to the depth of about one-eighth of an inch. The wound instantly enlarged itself, and shortly after the child was born. The cord was twisted twice about its neck and round between the thighs. The placenta was soon after expelled, and the uterus contracted firmly. The patient recovered, after having suffered occasionally tenderness over the uterine region, which was relieved by the use of aperients, with calomel and castor-oil.

Radical Cure of Hernia.—The patient was sixty years of age, under the care of Dr. Hicklin, of Mobile. He had been for many years troubled with scrotal hernia in the right side, which of late years had been considerably complicated with enlargement of the testicle on the same side. Extirpation of the testicle was proposed, and the operation was also intended to effect a radical cure of the hernia. The incision through the integuments, extending from the external ring to the lower part of the scrotum, was made; the spermatic artery laid bare and tied; the cord divided and taken out in the usual way. The incision was then extended, so as more fully to lay bare the external ring, which was cleared of cellular tissue. The hernial sack had already been opened, and a considerable portion removed with the testicle, to which it was adherent. A lead wire was then passed through the internal column of the ring, two or three lines from its margin, and about four above the pubis, continued down under the neck of the sack, between the latter and the pubis, and brought out through the external column, at a point opposite to the perforation in the other column, the object being so to place it as, when tied, the effect should be to draw together the two columns of the ring, and, at the same time, to compress the neck of the sack. A single knot was made, and with a pair of forceps the wire was twisted as tightly as so weak a material would permit. The opening was large enough to admit three fingers into the abdomen, and it was not reduced more than one half. The integuments were brought together with interrupted suture and dressings applied in the usual way. Secondary hemorrhage occurred in the night, and it was necessary to remove the dressings; the bleeding seemed to come from the veins of the scrotum, and was relieved by cutting the ligatures. The wound suppurated very profusely, and was six weeks in healing. There was afterwards no appearance of the return of hernia—a hard insensible lump occupied the seat of the external ring, where the lead wire was placed, and there is every reason to believe a radical cure was effected.

LINNEAN SOCIETY OF LONDON.

Reported by Dr. W. H. BROWN, F.L.S.

This society held its first meeting for the present session at its house in Soho-square on the evening of Nov. 2; E. Forster, Esq., V.P., in the chair. Among the distinguished literary and scientific men present were Mr. Yarrell, Mr. Westwood, Mr. Solly, Professor Forbes, Mr. Dou, Mr. Ingpen, Mr. Doubleday, Mr. Bennett, Mr. Ogilby; and among the visitors the Rev. J. Hamilton, and Colonel Harley. Many valuable biblical contributions were announced:—"Transactions of Royal Society of Edinburgh," "Journal of the Geological Society," "Proceedings of the Zoological Society," "Proceedings of the Geographical Society," "Proceedings of the Agricultural Society," "Report of the Meeting of the British Association for the Advancement of Science;" "Observations sur quelques Plantes rares observées aux Environs de Charbourg," par M. Auguste Le Jolis; "Documents rélatifs à la faculté germinative conservée par quelques Graines antiques," par M. Charles des Moulins, &c. &c.

Mr. G. Newport, the eminent comparative anatomist, read the commencement of a third memoir "On the Natural History, Anatomy, and Development of the Oil Beetle Melöe." The general object of this memoir was to examine the entire anatomy of the insect with reference to the principles of development which regulate the formation of organized bodies, and to show the universality of the laws of life. This examination commenced with the tegumentary system of the very young melöe, which was traced from its formation in the ovum, and announced by the author to be the foundation-structure of the organized body. Its analogy of structure in the earlier state with the earlier structure of plants, in being formed entirely of cells, was pointed out; and it was shown to be the structure in which the organs of locomotion originate, the method of formation of which was very clearly pointed out. The principles which regulate the origin of the dermis in the egg were shown to be precisely those which control its growth in the living animal.

The changes which take place in the cells of the tegument, and the secretion of earthy matter in them, were shown to approach very closely to those by which true bone is found in vertebrate animals, and were actually those to which the hardness of the dermo-skeleton of the insect was due. The chief earthy constituents of the cells were stated to be phosphate of lime, with carbonate of potash and lime. The mode of formation of the external skeleton of insects, and the internal skeleton or bone of vertebrata, was thus shown to be almost identical. Taking this view of the subject, Mr. Newport considers that we must regard the tegument of the insect as entirely of one structure—that is, of layers of cells in different stages of growth and development, and not as being formed of three separate structures—epidermis, mucous layer, and dermis. The hairs and spines were regarded as the excessive growth of the nuclei of the cells, and the tegument itself was shown to grow by the fissiparous division of the nuclei of the cells; and the sub-

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sequent development of these into distinct cells. The spiracles were also shown to be very similar to the stomata of plants; and that the respiratory organs seem to commence in a follicle of the granular tissue of the tegument, which up to that period had performed their function, these being the last formed of the essential structures of the embryo. A curious and interesting fact was pointed out with reference to the cornea of the eye in the young meloë, which, although a single organ, has its cornea formed of layers of dermal cells.

The author proposed to continue his paper (the reading of which elicited loud and general applause) on a future occasion.

After the reading of some proposition papers, for the admission of new fellows, and the transaction of some ordinary business, the meeting was adjourned to the 16th inst., and the members betook themselves to the library.

REVIEWS.

A Guide to the Examination of the Urine in Health and Diseases, for the Use of Students. By ALFRED MARKWICK, Surgeon to the Western German Dispensary, &c. London: John Churchill, Princes-street, Soho, 1847. Pp. 155.

Mr. Markwick is well known to the readers of the *Medical Times* as the translator of various interesting papers on Diabetes, &c., from the French. He has also contributed still further to English medical literature by a translation of "Bell's Essay on Diabetes," which received from the press high encomiums. The present work on the urinary secretion is intended for the use of students, that they may be furnished with a pocket companion, useful to them while prosecuting their hospital studies. Pathology is a most important branch of professional studies, and chemical science has done good service in effecting the solution of many problems which, to within a very short time, were considered incapable of demonstration.

The urinary secretion is one of the most important in the animal economy; and chemical philosophers have taken no small pains to elucidate some of the mysteries connected with its formation, and the changes which it undergoes. From the remotest antiquity, physicians directed their attention to the urine, and endeavoured to draw certain conclusions, according as it presented different appearances. As far back as the time of Hippocrates it was used as a criterion by which to judge whether a disease would be severe or mild in its character—long or short in its duration. It is not to be expected, however, that the ancients possessed any scientific knowledge, in reference to its constituent principles; appearances, with them, were everything; and with this little help they managed to make some very correct diagnoses of internal maladies. Rouelle, in the seventeenth century, appears to have been the first who examined the urine with anything like scientific accuracy, and to him must be accorded the merit of having discovered urea in it. The researches of Scheele did not go unrewarded; and Wollaston made such progress as to be able to give an accurate account of the various calculous deposits. Cruikshank examined healthy and diabetic urine, in which latter he discovered sugar. Within the last few years, however, the most important advances have been made, and since a new impulse has been given to chemistry, this science has really become the handmaid of medicine.

Mr. Markwick's "Guide" contains one hundred and sixty paragraphs, the first sixty-six of which embrace the properties and composition of healthy urine, and the various modifications it is liable to undergo, both in health and disease; the remaining number describe the mode of analyzing it. Healthy urine of adults is described as a limpid liquid, of a colour varying from an amber to a yellowish brown; of a temperature varying from 95° to 100° F.; of a peculiar odour, liable, however, to alteration from certain articles of food. The colour depends in a great measure on the degree of concentration of the secretion. It is also modified by particular states of the system, by certain articles of food, and some medicines: thus in febrile affections it is deep coloured; in nervous complaints, pale; in bilious disorders, yellowish, or of a dirty brown. Prout and Simon have also met with instances in which it was of a dark blue, owing to the presence of indigo, which, in all probability, had become generated in the system. Pus, blood, and bile alter its colour. Dr. Prout is of opinion that the colour of the urine is due to the presence of two colouring principles—one closely allied to lithic acid and lithate of ammonia, and gives them their yellow colour; and the other to some modification of the colouring matter of the bile; and he believes both to be intimately connected one with the other, from the circumstance that lithic acid and the biliary-colouring principle are similarly affected by nitric acid. A discrepancy of opinion exists respecting the pigment which gives to the urine and its lithic deposits that peculiar rose and purple tint in certain cases of derangement of the portal circulation. Scherer considers the colouring matter of urine allied to both that of the blood and bile; that it is formed from the hæmatin of arterial blood, and that its formation is analogous to that of the urea and lithic acid. The excess of this matter in the urine may be considered as an evidence of the kidneys performing a compensating function for the lungs and liver. A non-nitrogenized diet likewise increases, though not in equal proportions, the quantity of carbon and hydrogen passed with the urine.

The quantity evacuated in twenty-four hours averages between thirty and forty ounces; it is, however, influenced by various circumstances. The transparency of healthy urine is affected when its proper relative proportions are altered, or when it contains foreign matter. There is what is called a *pellicle*, a *cloud*, and a *sediment*. Its *consistence* varies with its density, and with the presence of foreign matters. Thus, the greater the specific gravity, the more consistent the urine. The *specific gravity* is subject to much variation—1·020 is, however, about the correct average. It also differs according to the specimen of urine examined—whether passed on rising in the morning, or excreted after copious liquid potations, or voided after a meal. Hence the division of the urine into three different kinds:—1. The URINA SANGUINIS, the urine of the blood, or morning urine; 2. The URINA POTUS; and 3. The URINA CHYLI, or of digestion.

Dr. Schweig states that there is a constant rate of increase and decrease in the density of the urine throughout the day; and that the specific gravity of the night urine passes through certain limits in a cycle of six days, attaining a maximum twice in that period; four of these cycles occur in each lunar month, the night previously to the new moon being counted as the second day of one of the cycles.

In consequence of this variation in the density of urine, it is necessary, for the sake of accuracy, that the whole urine evacuated in twenty-four hours should be collected, when it is to be examined; then to ascertain the quantity of its watery portion; and afterwards to examine its temperature, for Simon found that urine of specific gravity 1020·75, at 59° F., became reduced to 1019·85 when the temperature was increased to 64°, and increased to 1021·46 when it was lowered to 53° F.

Becquerel's analyses of urine, corrected by Dr. Prout, is generally considered as correct in this country, and is as follows:—(See Table).

Lehmann states the average amount of solid ingredients to be as follows:—

After a mixed diet	1·047·000
,, an animal diet.....	1·349·898
,, a vegetable diet	·914·541
,, a non-nitrogenous diet.	·643·455

Its solid contents, however, become greatly diminished in debilitated states of the system, and when the blood corpuscles are decreased in number.

		Urine in twenty-four hours.	Composition of 1000 parts.
Quantity of urine		25· fld. oz.	1000
Specific gravity		1·020	—
General composition	Water	14807 grs.	967
	Solid matters	505	33
Water		14807 grs.	967
Urea		226·802	14·239
Lithic acid		7·190	·468
Organic matters inseparable from each other	Lactic acid, Lactate ammonia, Colouring matters, Extractive matters, Muriate ammonia	146·467	10·167
Fixed salts indecomposable at red heat	Chlorides, Phosphates, Sulphates of Lime, Soda, Potash, Magnesia	(a)124·541	(b) 8·135
		15312 000	1000·000

COMPOSITION OF THE ENTIRE QUANTITY OF FIXED SALTS VOIDED IN TWENTY-FOUR HOURS.

(a) Fixed salts voided in twenty-four hours.		(b) Fixed salts in 1000 parts.	
Chlorine	9·04	Chlorine	·591
Sulphuric acid	15·39	Sulphuric acid	1·006
Phosphoric acid	5·72	Phosphoric acid	·372
Potash	23·40	Potash	1·529
Soda, Lime, Magnesia	70·99	Soda, Lime, Magnesia	4·638
	124·54		8·137

Urea enters more largely than any other substance into the composition of the urine. It is described by Dr. Prout as assuming the form of four-sided, prismatic, colourless, transparent crystals, of a pearly lustre, which leave a sense of coldness on the tongue like nitre. It has a faint and peculiar, but not *urinous*, smell; is neither acid nor alkaline; undergoes no change on exposure to air, except in very damp weather, when it slightly deliquesces, but does not seem to be decomposed. Mixed with salts containing water of crystallization, it separates the latter. It has also the singular property of altering the crystallization of particular salts. Urea has no neutralizing power, but combines with acids, especially the nitric and oxalic. Its formula is $C^2\ O^2\ H^4\ N^2$. Hence it will be seen to represent either one atom of cyanogen, two of water, and one of amidogen, or two atoms of carbonic oxide and two of amidogen; so that we readily see how cyanate and carbonate of ammonia and oxalic acid are formed in the urine; for, by *abstracting one* equivalent of water from one of urea, we have the composition of one atom of cyanate of ammonia; and if we *add two* equivalents of water to one of urea, we have the composition either of two atoms of carbonate of ammonia, or of one equivalent of oxalic acid, two of ammonia, and one of oxygen.

The conversion of urea into carbonate of ammonia occurs much more rapidly in warm than cold weather, and also when the urine contains a good deal of mucus; but it is necessary that oxygen should have free access to the fluid. The metamorphosis is very apt to take place in certain forms of mental derangement. The quantity of urea in the urine is greatly affected by diet and disease, it being increased or diminished apparently in a direct ratio with the globules of the blood. It seems to be generated from the gelatinous tissues during the destructive stage of the secondary assimilating processes. Uric or lithic acid is another important constituent of urine; it has neither taste nor smell, and, when pure, is perfectly white, and crystallizes generally in rhomboid scales. It is converted by heat into hydrocyanic acid, urea, carbonate of ammonia, and an empyreumatic oil. Its formula is $C^{10}\ N^4\ H^4\ O^6$. It is subject to changes, which produce various new products. When it exists in excess in the urine, it either becomes deposited as the urine cools, or on the addition of an acid. The natural acidity of healthy urine has lately been accounted for by Liebig and Bird, by the uric and hippuric acids acting on the alkaline

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phosphates, and either setting free a portion of these acids or converting them into acid salts. In the urine, also, is formed hippuric acid, extractive matters, mucus, &c.

In speaking of the process by which the nature of the different natural and unnatural urinary constituents can be ascertained, the author remarks, "We should begin by making ourselves acquainted with the colour, odour, transparency, and consistency of the urine, and then with its density, and chemical reaction on test paper. By its *colour* we judge, *first*, of its degree of concentration or dilution, and, consequently, of the amount of solid ingredients; *secondly*, of the presence of certain foreign matters; and *thirdly*, of certain morbid states of the system. By its *odour* we not only ascertain whether decomposition has taken place, or whether some foreign odoriferous principles are present, but we are also enabled to suspect the existence of certain diseases. By a *deviation from its natural transparency*, we discover either that some of its natural constituents are in excess; that it contains some abnormal element; or that some change has taken place in it by decomposition. By *an increase in its consistence* we detect the presence of mucus, pus, albumen, sugar, and even, in some cases, of oxalate of lime. By its *density* and *quantity* we are not only enabled to ascertain the amount of solid matters present in a given specimen, and the quantity excreted in a certain time, but are also led to infer either that certain elements are diminished or in excess, or that some abnormal ingredient is present, or even the existence of some particular malady. Lastly, by its acid, neutral, or alkaline reaction, our former suspicions respecting the cause of the change in its colour, odour, transparency, and consistence become in a great measure confirmed."

To ascertain the chemical reaction of the urine, blue or red litmus-paper should be employed. The density may be obtained in two ways: either with the specific-gravity bottle, which is the most correct; or with, what is more commonly used, the urinometer—an instrument consisting of a stem graduated from 0 to 60°, and two bulbs, the lower one being partially or quite filled with mercury, in order to increase the weight of the instrument—a cylindrical glass vessel—in which the urine to be examined is to be placed. In using it all that is required to be done is to place it in the urine contained in the glass, and then to carefully note the figure corresponding to the surface of the fluid, which will be the density of the latter. In estimating the specific gravity it is necessary for the urine to be perfectly clear and free from impurities.

The chemical processes recommended are simple, yet scientific; and the work will be very useful to the medical *alumni* for whom it is intended, and not to them only, but to those practitioners in the country who have not had those opportunities of cultivating chemical pathology which their more favoured brethren of the metropolis enjoy.

THE MEDICAL TIMES.

SATURDAY, NOVEMBER 13, 1847.

THE POOR-LAW CONVENTION.

There have been three meetings of the committee during the last fortnight. The attendance was full, and the interest in the subject exhibited by each gentleman was cheering in the extreme. Dr. Burton attended from Walsall on one of the occasions, and occupied the chair. On the other occasions the chairmen were Mr. Clifton and Dr. Hodgkin. The latter gentleman has been chosen perpetual chairman of the committee, with Mr. Martin, of Reigate, as vice-chairman.

During the last two meetings several gentlemen have been added to the committee: among them are Messrs. Smith, St. Mary Cray; Mr. Boulger, Bletchlingly; Mr. Bottomley, Croydon; Mr. Vallance, Stratford; Mr. Byles, Hackney-road; Dr. Barnett, Limehouse; and Mr. Lobb, Aldersgate-street—all union medical officers. Several communications were read from union surgeons in the provinces—all of a very interesting character; and the treasurer, among several subscriptions of smaller amount, announced the receipt of £10 from R. R. Pennington, Esq., of Cavendish-square, the venerable president of the National Institute.

The committee on more than one occasion, and by more than one vote, expressed their desire of securing the services, as members, of Messrs. Bird and Ancell. But these gentlemen, while expressing their warm interest in the cause of the committee, have found themselves obliged, by other engagements, to decline the additional responsibility.

The subjects which have principally occupied the attention of the committee during its last two sittings have been the ascertaining the names and addresses of all union surgeons; the preparation of documents, to be submitted to them as to the objects of the committee, with printed forms, to be filled up, on the statistics of poor-law medical relief; and thirdly, the making arrangements for communicating with the different corporate bodies, and with the Government, on the grievances of poor-law surgeons.

MEDICAL REFORM.

The mutual charges by Lincoln's-inn and St. Andrew's of the utter worthlessness of each other's examinations offer strong proof, from a new quarter, of the necessity of speedy and effective legislation. The diploma of St. Andrew's, says Mr. Lawrence, is no evidence of professional competency: yet it is *proved* by Dr. Reid to be twenty per cent. better than the diploma of the English College of Surgeons! It is infamous, and a public cruelty, says the amiable and consistent ex-President, to tolerate the practice of a St. Andrew's graduate. What is it, then, responds Dr. Reid, to legalize the doings of practitioners who are every way so inferior?

It would be charitable, as indeed it is natural, to fancy that there is something extravagant in these mutual recriminations. For a little temper in Dr. Reid there were sufficient provocatives; and the early associations of Mr. Wm. Lawrence would have been plainly impossible if there had been that sort of stuff in his composition which could allow him to treat a rival establishment with gentlemanly fairness and good feeling. But, with every disposition to abate from the intensity of their mutual censures, we are compelled to bow down to the evidence of facts, to the extent even of accepting the ex-President in his new character of an unimpeachable authority. There is, unfortunately, very little doubt that the diplomas are as bad as they have been represented; and the greater regret remains—that what is true of these two institutions is true of several others. We must not disguise the truth from ourselves: *the doctor-making of this empire is a money-making speculation in the hands of a few private individuals.* The want of funds among the examiners decides the number of doctors admitted to the public. There are a great many establishments to be kept up: a great many examiners to be paid: and a fierce rivalry to be fought against: is it wonderful then, that without legal check or surveillance, men become surgeons and physicians who are unacquainted with the very elements of their own language? or that the pastrycook of one Twelfth Night is the surgeon of the next? or that our great metropolitan College, reduced to straits by bad legislation, becomes twenty per cent. worse in its admissions than even the University of St. Andrew's?

Now, this is *the* state of things that wants alteration. No profession can exist under so baneful a *regime*. If there be a spirit of trade and huckstering among the corporations, that spirit will inevitably descend upon the members. The vile mammon competition of the Colleges begets a viler mammon competition among practitioners, and by a most natural parentage: for, unquestionably, if the *sanctum sanctorum* of the most sacred of professions be turned into a den of mercenary adventurers, where worth is sneered at and genius laughed to scorn, the outer courts will not fail to be filled with men imbued with the pernicious influence, using science as hypocrites do virtue, and, in the guise of humanity's apostles, playing mischief's most active missionaries.

THE MODEST COLLEGE IN PALL-MALL.

"Meliora speramus; crescit sub pondere virtus."

If we were to believe the testimony of the officers of the English College of Physicians, who were examined before the Select Parliamentary Committee on the Medical Registration Bill, we should arrive at the conclusion, that it is the best medical institution that was ever incorporated, and had connected with it the best men that ever engaged in the practice of the healing art. Moreover, the melancholy conviction would be forced on our minds that this peerless college has been so neglected by successive governments as to leave it without the power of enforcing those regulations which have been promulgated for the good of the profession and the especial advantage of the College funds. It is rather a singular circumstance, however, that, while the corporation has appeared such a perfect beauty in the eyes of those who belong to her household, the general opinion in reference to her is, that she is in nothing better than a decrepit old woman, so tight-laced as to be very stiff in all her movements, and bedizened with very showy ornaments, which, instead of being diamonds of the first water, are only paste. Grey hairs, they say, are always honourable, and the old lady's knowledge-box having been considerably frosted by time, we suppose that to her also must be accorded those marks of respect due to length of days.

The recent exhibitions of vanity, however, in the old lass, brings to remembrance her sins, and they range themselves under those two divisions which theologians have pointed out as including all the aberrations of mind and conduct in the sons of men. Our charity prevents us now from specifying the several items contained in the two long, black catalogues, to which reference has just been made; and we shall only select a few of those "sins of commission" which have been wantonly committed against general practitioners. The College has manifested towards these, on all occasions, the most ineffable contempt, denominating them an "inferior grade," whose social position, general education, and professional skill utterly disqualify them from being placed for a moment in the same rank with its own members. The bold corporation has, with brazen effrontery, declared before the

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British House of Commons that the surgeons of England, practising the three branches of medicine, are utterly guiltless of having perpetrated anything, at any time, in the shape of professional literature, and that this has only been done by those who are medical or surgical "puritans." "There are," said one of the College representatives, "a certain proportion of clever men (among the general practitioners) who avail themselves of their opportunities of observation, and afterwards become able practitioners; but you do not find that they are the men who add to the science of their profession, however skilful they may be in the treatment of disease. You do not find that advances in science are made by these men." The worthy gentleman who made this statement must have been accommodated at the moment with a very short memory, not to have called to mind the names of some men who flourished within the last century as general practitioners only, who have enriched science and blessed mankind by their discoveries. It is the practice, we know, of this cunning old College to endeavour to kidnap from the "lowest grade" any who may have made brilliant discoveries in the healing art, to dub them with the title of M.D., to immerse their heads in trencher caps, to hang upon their shoulders black gowns, and then to publish in the College lists the names of such individuals as fellows or members of the corporation. The crazy foundations of the institution would long ere this have let down the superstructure if there had not been fastened in some lively stones taken from amongst that very body which the College functionaries affected to treat with so much contempt before the House of Commons. There were men there, however, not so easily to be imposed upon as might have been expected, and who, seeing through the crafty attempt at corporate deception, would not have a higher opinion of the brotherhood by the effort made to elevate it upon the shoulders of "Apothecaries." Some malicious infidels, we are told, two centuries ago, would believe none Protestants but those who wore little bands and cropped hair; and the Pall-mall corporation would have it understood that, without its academic gown and cap, none are capable of scientifically treating disease or of writing a respectable medical work.

Scarcely, indeed, is this to be wondered at, if, as the College stated through its representatives, the unincorporated general practitioners are so inferior in point of education, professional and general, to the members of the Physicians' Corporation. Dr. Burrows said, "The body of physicians is but a small body; they are most of them men who commenced their profession at a mature age, having gone through an extended education. They are submitted to protracted examinations before they are admitted as members of the College. At the present moment there are very few who enter into practice in this metropolis who have not continued their studies up to six or seven and twenty years of age; they continue their education at hospitals or the public institutions for six, or seven, or eight years; they expect, at the end of that time, to be able to take a certain position in the profession and in society. I should think it is very difficult to appreciate the great advantages which result to society from there being an order of men in the profession who have had an education with the members of other learned professions; from a certain class of the medical profession having been educated with the gentry of the country, and having thereby acquired a tone of feeling which is very beneficial to the profession as a whole, and which is reflected from those who have had the good fortune to have enjoyed those advantages, upon others who come in contact with them in professional intercourse in after life." And how, we ask, does it come to pass that these advantages are confined to a few favoured individuals, and not extended to the whole medical commonwealth? If a university education carries with it a power of influencing rightly the morals of the whole profession, why is it that any of its members are so trammelled, as to be unable, without an extra expenditure of time and money, to be made partakers of the same? To the disgrace of the College of Physicians be it said, that, through the influence which it has exerted in former times with the Executive, the youth destined to practise the three branches of the medical art are compelled to pass the first years of their professional life in the bonds of a lengthened apprenticeship, instead of being permitted to pursue their studies in those seats of learning where they would come in contact with the "gentry of the country." Last week we exposed the double dealing of the College, which so mutilated the Apothecaries' Act of 1815 as to prevent it effecting all that good for the profession which it would have done if the bill first proposed had been passed into a law. Let Dr. Burrows and his fellows, if they possess that high moral feeling of which they boast, come forward immediately as advocates for the enfranchisement of those whom they have charged with being men of inferior education to themselves, or for ever after hold their peace upon the subject of morality.

But, while it may be admitted that the College of Physicians requires of the candidates for its diploma a better general education than what the surgeon-apothecaries usually possess, we cannot allow that their professional education is at all inferior to that which is demanded by the College for its future members to undergo. Looking over the regulations of the College, we find that the medical education of those who seek the licence must comprise anatomy, the theory and practice of medicine, forensic medicine, chemistry, materia medica, natural history (principally botany), midwifery, and the principles of surgery, and must extend over the period of five years. Practical medicine must be studied for three years in a hospital containing at least 100 beds, and having a complete staff of physicians and surgeons. What more have we here than that which is required by the Society of Apothecaries of those who intend to become candidates for their licence? Men may pride themselves of their connection with Oxford and Cambridge, but, as medical schools, they are admitted by those who are capable of judging as possessing slender means of imparting instruction. Dr. Burrows spoke of Cambridge as being his *alma mater;* and doubtless he enjoyed wonderful opportunities of acquiring professional knowledge in the classic halls of Downing College and the sick wards of Addenbrook Hospital. This latter institution possesses the unspeakable advantage of having rather more than eighty beds for the accommodation of patients, is adorned with a nice green plat in front, and is separated from the street by a narrow ditch filled with turbid water. We have no room at present to enlarge upon the merits of this university as a medical school, but will with pleasure on some future occasion, if the officers of the College of Physicians should wish us; and it would then be seen that, if young physicians did not become pilgrims in search of knowledge, the "inferior grade" would certainly be their masters in the sick-chamber.

It is a most unfortunate circumstance for the ancient corporation in Pall-mall, that, while it has endeavoured to impress upon the public the superior wisdom of those who are taken under its patronage, there have been individuals from time immemorial who have looked upon the College as neither endowed with constitutional perfection nor professional superiority. We have a curious book, written by one Dr. Gideon Harvey, physician in ordinary to his Majesty, and published in the year 1686, entitled "The Conclave of Physicians," &c. In reference to this "Conclave" he says, that it is "the eldest quack synagogue, consisting of a physic-pope or patriarch, and a competent number of medical cardinals, who, being grown ancient, covetous, and, through forgetfulness, ignorant, are to govern the rest; and whenever they are consulted they are to impose upon the juniors their pretended long experience, which they are to embrace with the same implicit faith as the Turks do their Alcoran. But, if refractory, they are to be convened before *il Consiglio picolo*, which is their purgatory, whence they may be received again into the bosom of the conclave; but, if afterwards they prove incorrigible, then the whole conclave sits upon them (which is their inquisition), and there they are damned, and utterly expelled without redemption. Thus in my time I have known several poor wretches damned, going about streets like dogs without tails. Against those who refuse being admitted into their conclave they send forth their bulls and anathemas, declaring them mountebanks, quacks, chemists, barbers, ignorants, &c.; and, if such should at any time have a patient die under their hands of an incurable disease, they thunder out he killed the patient, poisoned him, applied wrong medicines, and the like." Now, these are the declarations of a court physician in reference to his own fraternity, and we may learn from them that the corporation was guilty of endeavouring to excite the admiration of the public, on its behalf, by scandalizing individuals who did not acknowledge its authority.

Comparing the statements of the College functionaries in reference to general practitioners with the regulation which proposes to admit them to examination after forty years of age, we cannot help thinking that such a clause was never intended to accomplish all that which appears on the face of it. The examiners, from the power given them to examine either in Latin or English, evidently possess the means of rejecting at will very many candidates. Few men, who have been in practice some fifteen or twenty years, would retain sufficient knowledge of a dead language to converse in it without sharp grinding prior to examination. It would appear far more liberal if the candidate had the option of being examined either in Latin or English; not for the examiners to decide in which language the questions shall be asked and answered. A knowledge of disease ought certainly to be more highly esteemed than the ancient Roman tongue, and hard-earned experience than the hard words of the Father of Physic.

Let the general practitioners see, from the statements of the officers of the College of Physicians before the select committee of the House of Commons, how earnest certain parties are to depreciate their worth, and to make them

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subservient to their own purposes. Let them, in self-defence, seek an incorporation for themselves; and let the first efforts of the New College be directed to the great subject of education. In the mean time the aristocratic old body of Pall-mall must be carefully watched, so that they may have no opportunity of making brass pass current for gold, or mere paste for genuine diamonds.

THE SCIENCE OF METEOROLOGY, AND ITS BEARING UPON THE PUBLIC HEALTH.

"Nec frustra signorum obitus speculamur et ortus,
Temporibusque parem diversis quatuor annum."
VIRG.

A DISCOVERY of the causes which give rise to the various diseases invading the human frame will always aid the intelligent medical practitioner in their treatment, and in devising means to accomplish their extirpation. Within the last few years much has been done to improve the health of the people, while much remains to be accomplished in order to effectually secure to the population a freedom from those diseases which result from causes over which control can be exercised. The Government has done well in ascertaining, so far as circumstances will admit, the sanitary condition of the people; and the members of the medical profession have acted in their usual enlightened and liberal spirit by rendering all the assistance in their power that correct returns may be made of the amount of disease existing amongst the people, and of the causes of mortality.

We adverted last week to the quarterly return of the Registrar-General, and the document is worthy the attention of all medical men. During the last three months, we learn from it that there were 1948 deaths less than the corresponding quarter of 1846, though the average amount of mortality still remains very high. That the state of the weather has much to do with the health of the people, there can be no doubt; hence there is very properly appended to the "return" remarks on the weather during the last quarter, by James Glaisher, Esq., of the Royal Observatory, Greenwich. The profession has scarcely devoted sufficient attention, we think, to atmospherical vicissitudes as influencing disease, in consequence, doubtless, of the zeal with which they have been animated in putting down the nuisances of large towns. These are evils, it is true, which call for immediate abolition, but we hope that, at the same time, the science of meteorology will be cultivated with an amount of diligence which so important a subject demands. The observations of scientific men, in various parts of the kingdom, cannot fail of advancing the science, and there is every reason to hope that, as knowledge is increased, good will result to the people.

Mr. Glaisher's report says—"The depression of temperature *below* the average, which took place from the 7th of June to the end of the month, continued till the 4th of July. On the 5th a period of hot weather set in, and from this time to the end of the month the average daily temperature was, with very slight exceptions, *above* that of the season. The daily temperature during the first and last weeks of August was *at* or *below* the average, and *above* the average during the remainder of the month. The month of September was cold, the temperature being nearly every day throughout the month *below* that of the season. The mean temperature of July at Greenwich was 65°4, which is 0°9 *above* that of 1846; 5°6 *above* that of 1845; 4°0 *above* that of 1844; 4°5 *above* that of 1843; 5°2 *above* that of 1842; 7°6 *above* that of 1841; and 4°6 *above* the average of those six years. The mean temperature of August at Greenwich was 62°1, which is 1°1 *above* the average for the six preceding years. The mean temperature for September at Greenwich was 52°3, which is 3°1 *below* the average of the six preceding years. The low temperature of this month is very remarkable. The mean temperature of the quarter at Greenwich was 60°6, which is 1°9 *above* that for 1844; 3°7 *above* that for 1845; 2°0 *below* that for 1846; and 1°4 *above* the average for the quarter for the six preceding years. The mean temperature of evaporation for the quarter at Greenwich was 57°0, which is 2°1 *above* that for 1844; 2°7 *above* that for 1845; and 1°9 *below* that for 1846. The mean temperature of the dew-point for the quarter was 54°1, which is 0°7 *above* that for 1844; 1°9 *above* that for 1845; 2°2 *below* that for 1846; and very nearly the same as the average for the six preceding years. The mean weight of water in a cubic foot of air for the quarter was 4·8 grains, which is 0·1 grain less than the average for the six preceding years. The additional weight of water required to saturate a cubic foot of air was 1·1 grain; the average for the six preceding years was 1·0 grain. The mean degree of humidity of the atmosphere for the quarter was 0·814, which is very nearly the average value, as deduced from the six preceding years. The mean elastic force of vapour for the quarter was 0·429 inches, which is nearly the average for the six preceding years. The average weight of a cubic foot of air under the average temperature, humidity, and pressure, was 527 grains, and the average weight for the six preceding years was 526 grains. The rain fallen at Greenwich within the quarter was 4·7 inches in depth; this quantity is about one half of the usual amount collected. The horizontal movement of the air was about 840 miles weekly, being somewhat less than the average amount. The temperature of the Thames water was 65°2 by day, and 62°9 by night. The water on an average was 3°5 warmer than the air. The highest and lowest readings of the thermometer in air at the height of four feet above the ground, and protected as much as possible from the effects of radiation and rain, were 86°0 and 38°5, as taken from the two-hourly observations; those readings, therefore, are not the true maximum and minimum readings, unless such happened at the times of observation. The average daily range of the readings of thermometers in air at the height of four feet was 18°5, which is about 2° above the average amount. In July the reading of the thermometer on grass was below 40° on five nights; the lowest reading was 36°5. In August it was below 40° on five nights, and the lowest reading was 32°. In September it was below 40° on seventeen nights, on ten of which it was below 32°, and the lowest reading was 24°. On Sept. 24, an aurora was seen at many places in the south of England, and particularly in Cornwall. During the whole of this day the magnetic instruments at Greenwich were very much disturbed. The several instruments changed their positions very frequently, and to large amounts. At Greenwich several streamers of the aurora were seen."

It is a well-ascertained fact, that under certain conditions of the atmosphere, particular diseases manifest themselves with especial intensity—these are of the zymotic class, such as smallpox, measles, scarlatina, typhus, influenza, and cholera. "After certain intervals of time," says the report, "in which they are fatal to a smaller or greater number of persons in different places and seasons, great multitudes are suddenly attacked and destroyed in a given locality; the disease in this intense form involves the neighbouring population, spreads around the whole region, and sometimes travels over the tracks of human intercourse through the world. Little is known of the immediate chemical or vital causes of epidemics; but in given circumstances, where many are immersed in an atmosphere of decaying organic matter, some zymotic disease is invariably produced: where there is starvation, it is most frequently typhus; cold, influenza; heat, it is cholera, yellow fever, plague. At the mouths of the Ganges, of the Nile, of the Niger; in London, particularly up to the seventeenth century; in camps, in barracks, in ships, in prisons, formerly; in Ireland, in Liverpool, in all our towns, now: the circumstances in which zymotic diseases become epidemic may be witnessed."

We sincerely hope that, while the subject of sanitary reform is vigorously advocated, as the means of promoting the public health, the investigation of phenomena resulting from certain conditions of the earth and atmosphere will also be carried on with vigour. Here are unexplored tracts which will amply repay the diligent seeker after truth in this particular science; and there are good reasons for hoping that, as facts become known, increased benefit will accrue to the healing art.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE present session of the Royal Medical and Chirurgical Society has opened with unusual *éclat*. The meeting was the largest and most distinguished we have ever witnessed in those rooms—every hospital seemed to have poured forth its contingent; and to judge from the encomiums which were passed on it by the different speakers—among others by the President of the College of Surgeons, Dr. Bright, and others—we cannot but conclude that the paper of the evening was worthy of the occasion. It was by Mr. B. Phillips, F.R.S., and was entitled "Observations on the Diagnosis and the Treatment of Intestinal Obstructions depending on Internal Mechanical Causes." It contained an estimate of the comparative frequency of such cases; the difficulties of diagnosis; the impossibility in many cases of ascertaining the cause and the seat of the obstruction: usual fatal result of ordinary treatment; and an elaborate discussion of the question—Are we justified in resorting to surgical operation for the purpose of procuring relief? These are the general heads of this very excellent and much-commended paper, of which the proper abstract will be published at the usual time.

Now, a few words as to this society, unquestionably the most prosperous in this metropolis, for its numbers have doubled in the last seven years. It has nothing to fear from any rival, if it be but true to itself; it numbers among its fellows all the *élite* of the profession; and its library promises to be the best of its kind in London.

With those attractions, and such meetings as the last, its popularity must increase. Still the sun has its spots; and this society is said not to be free from them. There are complaints of the exclusion of papers from the "Transactions." We do not profess to know whether the council

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is right, or the disappointed candidates for admission; but this we do know, that when the question of publication is a matter left in doubt by the referees, the author of the paper, if a young man, should have the benefit of the doubt; if an old one and distinguished, he will certainly. It is often a serious thing to snub a meritorious young man by returning his paper. Instead of inducing him to write a better, it often cows him, and prevents him from further exertion. Any unjust complaints it may safely disregard; but we fear that certain papers, quite worthy of publication, have been sent back to their authors with thanks.

STATE OF THE PUBLIC HEALTH IN THE THIRD QUARTER OF THE YEAR 1847.

The quarterly returns are obtained from 117 districts, subdivided into 582 sub-districts. Thirty-six districts are in the metropolis, and the remaining 81 comprise, with some agricultural districts, the principal towns and cities of England. The population was 6,612,800 in 1841.

The deaths registered in this quarter were 49,479; a number less by 1948 than were registered in the corresponding quarter of 1846; but 7007 more than the corrected average of the September quarters of 1838—46. Upon the whole there is a slight improvement in the health of the country.

The relative salubrity of the summer season of the ten years, 1838—1847, is displayed in the subjoined table.

	1838.	1839.	1840.	1841.	1842.	1843.	1844.	1845.	1846.	1847.
Deaths registered in the September Quarters of 10 years	34,752	37,317	39,498	36,058	39,409	36,953	38,933	36,139	51,427	49,479
Deaths which would have been registered if the mortality had been uniform, and the numbers had increased from 1838 at the rate of 1·75 per cent. annually. Deduced from the average of 1838—46	36,339	36,968	37,615	38,273	38,943	39,625	40,318	41,023	41,741	42,472
UNHEALTHY SEASONS. Difference above the calculated number	..	349	1,883	..	466	..	..	..	9,686	7,007
HEALTHY SEASONS. Difference below the calculated number	1,580	..	..	2,215	..	2,672	1,385	4,884	..	..

From the next table of the deaths returned in each quarter since 1838, it will be seen that a small rise in the mortality took place in the spring after the mild winter of 1846—that a sudden advance occurred in summer—that the mortality reached the maximum (56,105) in the winter of 1847, and has since slowly subsided.

DEATHS REGISTERED in the Four Quarters of the Eight Years 1839—1846, and Three Quarters of 1847, in 117 of the DISTRICTS of ENGLAND and WALES.

Quarters ending	1839.	1840.	1841.	1842.	1843.	1844.	1845.	1846.	1847.
March ..	42,410	46,376	46,967	44,903	43,748	46,136	49,949	43,850	56,105
June	41,244	42,074	39,133	38,569	40,343	38,977	40,847	43,734	51,585
September ..	37,317	39,498	36,058	39,409	36,953	38,933	36,139	51,427	49,479
December ..	41,740	44,186	39,292	39,662	42,607	44,081	39,321	53,093	
TOTAL ..	162,711	172,134	161,450	162,543	163,651	168,127	166,256	192,104	

The Mortality of the District of Lewisham, and Sub-district of Hampstead, is included in this Table throughout.

In London there has been no sign of improvement. 10,987, 12,601, and 13,187 deaths were registered in the September quarters of 1845, 1846, and 1847. The deaths in the summer quarters of the three years from smallpox were 76, 51, and 320; measles, 688, 78, and 521; scarlatina, 194, 208, and 316; diarrhœa, 449, 1549, and 1196; cholera, 26, 197, and 98; dysentery, 43, 75, and 143; remittent fever, 8, 12, 23; typhus, 273, 403, and 895; erysipelas, 56, 92, and 126; the zymotic class of diseases generally, 2409, 3234, and 4061. The deaths from diseases of the respiratory organs were nearly stationary; 1558, 1784, and 1581 persons died of consumption; 1111, 977, and 1071 persons of inflammatory and other diseases of the lungs. Two, three, and sixteen deaths were directly ascribed to various kinds of privation in the three last September quarters. The increase in the deaths by external violence, which were 342, 403, and 425, may have arisen from erysipelas, and other affections supervening on accidents, in an unusual proportion.

In the first nine weeks of the quarter the mean temperature of the atmosphere, and of the waters of the Thames, was above 60°; the mortality in London from diarrhœa, dysentery, and cholera, rose from 17 on the first to 188 on the seventh week of the quarter, and gradually fell to 107 on the last week. Typhus raged with unusual virulence. The weekly deaths were never below 50, and in the third week of September 111 persons died of this disease. The weekly average was 30 for the same quarter of five preceding years.

The epidemic of fever has been more fatal in Lancashire than in London. In Manchester, Salford, and Chorlton, 4154 deaths were registered from all causes. Diarrhœa and fever were the prevalent diseases. Typhus carries off men and women in the prime of life. Diarhœa destroys more children, and becomes dangerous to adults in the form of cholera. The Registrar of Deansgate, Manchester, says:—

"More children have died in the district during the last quarter under the age of five years, than in most other quarters there have been deaths at all ages. This is an astounding fact, yet perfectly consistent with prior observation; if the general mortality be large, the infant mortality will ever be found to bear its due proportion, and the causes, in such a district as this, are perfectly obvious. In the calamitous season just passed, manufactures have been almost at a stand-still; food has been unattainable by the poor, for employment they had none; Famine made her dwelling in their homes, and her attendant horror, Typhus, relentlessly swept his victims to the grave. During the sickness, which either terminated in death, or rendered the removal of the poor to the fever hospitals necessary, their offspring have been neglected and uncared for; some have sunk under the malady of their parents—others, deprived of the nourishment nature had supplied, have pined and wasted away, the victims of inanition, their glands diseased, and incapable of assimilating the incongruous food supplied to them. The disease of autumn has also done its work fearfully amongst them, no less than 103 deaths, almost entirely of children, being recorded from diarrhœa, under the drain of which the exhausted frames of the little sufferers rapidly sunk. In the close, ill-ventilated, and densely-crowded rooms where the poor hive together, contagious disorders make rapid progress, extending from one to another, and acquiring increased virulence from the filth and noisomeness with which they are nourished."

Liverpool, created in haste by commerce—by men too intent on immediate gain; reared without any very tender regard for flesh or blood; and flourishing, while her working population was rotting in cellars—has been severely taught the lesson, that a part of the population—whether in cellars or on distant shores—cannot suffer without involving the whole community in calamity. In itself one of the unhealthiest towns of the kingdom, Liverpool has for a year been the hospital and cemetery of Ireland. The deaths registered in the four quarters of 1846 were 1934, 2098, 2946, and 2735; in the three quarters of 1847 ending in September last, 3068, 4809, and 5669! The population of Liverpool was 223,054 at the last census. It is impossible to represent more correctly than is done by the short notes of the registrars, the piteous spectacle which this great town presented—with the floating lazarettos on the Mersey—the workhouses crowded with destitute paupers—the three large "sheds which will hold 300 persons, nearly full of patients at the present time"—and the fever "getting more prevalent among the upper classes."

"*Sub-district.—Saint Martin.*—Deaths 1026: this return shows a fearful increase of mortality in this district. Fever, diarrhœa, and dysentery, as in the last quarter, have been the prevailing diseases, but to a far greater extent. In the corresponding quarter last year, there were 700 deaths, which was the greatest number ever registered by me, but the present return shows an increase on that quarter of 326. The deaths from fever are 291, diarrhœa 174, dysentery 82.

"*Great Howard-street.*—Deaths 1253: this return shows an increase of 183 over the last quarter. It may be accounted for by the fact, that the floating fever hospitals have been given up by the select vestry, and consequently more patients are sent to the north fever shed. The fever is now getting more prevalent in the upper classes in the town, though not of that fatal character which has destroyed so many indigent Irish. Diarrhœa and dysentery still prevail.

"*Dale-street.*—Deaths 747: being 57 less than in the preceding quarter. This may be accounted for in great measure by the removal of the lower Irish from the cellars, besides many being sent back to Ireland by the authorities; otherwise, the mortality would have been greater than in the preceding quarter.—Fever cases, 250; diarrhœa, 111; dysentery, 20; smallpox, 16; measles, 11; cholera, 6.

"*Saint Thomas.*—Deaths 915; which include 301 who died on board the lazarettos on the river Mersey. Typhus and dysentery have been the prevailing diseases. The former is very much on the decrease, and the district has begun to assume a more healthy state.

"*Mount-pleasant.*—Deaths 956: including 630 in the workhouse, and 33 at the infirmary. There is attached to the workhouse a large fever hospital, which will hold about 128 persons; and there has also been very recently erected (for the reception of the Irish paupers) three large buildings or sheds, which will hold about 300 persons; also other buildings, all of which are nearly full of patients at the present time. The deaths this quarter are 51 less than in the last quarter.—There were 324 fatal cases of fever; 18 of dysentery; 73 of diarrhœa; and 22 of phthisis in the workhouse. There have also been 51 fatal cases of fever in this district, independently of those in the above public institutions.

"*Islington.*—Deaths 524: the largest quarterly number I have ever registered, principally to be attributed to fever, diarrhœa, and dysentery; from fever in July, 38; August, 42; September, 25—105. Diarrhœa, 78; dysentery, 37."

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It will require all the energy of the inhabitants of Liverpool, and the utmost resources of science, to place the health of the town in a satisfactory condition.

The mortality remains high in Birmingham, Dudley, Wolverhampton, Shrewsbury—in many of the towns of Lancashire—in Leeds, Hull, York, and Sunderland. The returns from the other towns of the kingdom present nothing unusual, the mortality being much the same as in previous years. This refers to the relative mortality. The absolute mortality is always higher by from 10 to 50 per cent. in towns, than in open country districts. This is illustrated by a comparison of the deaths registered in London during the last thirteen weeks, and of the deaths which would have happened if the rate of mortality had been the same as in Dorsetshire—one of the agricultural counties—in which the wages are low, and in which the condition of the labourer is far from what it is desirable that it should be.

MEDICAL ASSISTANTS.

[To the Editor of the Medical Times.]

Sir,—Perceiving by your invaluable and widely-circulated journal, that you are indefatigable in vindicating the character, and in endeavouring to uphold the rank and respect, of the medical profession, I beg leave most respectfully to submit to your perusal a case which is both disgraceful and shameful, and most unprofessional-like to the parties concerned; the particulars of which are briefly as follows:—

Surgeons T——— and J———, who are in co-partnership, and the *principal practitioners* in this part of Yorkshire, have conducting their business, as a dispensing and visiting assistant, a young man taken from behind a druggist's counter, who in his lifetime never saw either College or Hall, and, I may venture to say, never opened a classical book. Now, Mr. Editor, this is really painful and highly provoking to witness, as it is keeping the duly qualified and legitimate assistant out of his legal berth, and I may say taking the dearly-bought and well-earned bread out of his mouth; independent of those facts, it is absolutely undermining and degrading the profession to allow such illiterate beings to creep into it. I am not surprised that the respectability of the profession should be plunged into the abyss of degradation and quackery if every general practitioner acts in a similar manner. You may naturally ask me, what reason can I assign for such a violation of professional conduct and respect? It is simply this, because they get him a few pounds cheaper in the year. I ask you, Sir, should not, in fairness, every practitioner recompense and remunerate his assistant according to his labours? for even scripture tells us that every labourer is worthy of his hire, which is an axiom of natural as well as of revealed religion; and to do to others as you wish to be done by. This is a golden standard of Christian morality and honour; but such sordid, parsimonious, and mammon-loving beings, whom I am most happy to find are the fewer in number, look not at it in this light, but more in a niggardly point of view. This professional conduct would not be half so heinous if their medical practice were on a humble scale, but it is *vice versâ*. They send him!!! and he has the audacity to go and attend midwifery cases as if duly instructed and qualified in that art. I suppose and make no doubt, when he has scraped together a few pounds, that he will set up on his own responsibility.

In conclusion, I cannot but add that I am beginning to be fully and thoroughly convinced, from what I have read from time to time in your admirable journal, and from self-experience, that the apothecaries' and surgical diplomas are a mere delusion, a mockery, and a snare.

I am, Sir, &c.,
Limericencis.

Barnsley, Yorkshire, Nov. 5.

POOR-LAW SURGEONS.

[To the Editor of the Medical Times.]

Sir,—The conventional meeting of Poor-law Union Surgeons will tend, by its publicity, to draw the attention of Government to the fact of their inadequate remuneration; and also, from the extent of mileage into which the districts are formed, the riding by other practitioners may be altered by dividing it into smaller apportionments. But would it not be also advisable to ascertain the root of all this dissension in the profession; the cause of the loss of self-respect felt by its members; and the consequent contempt with which the man of cash regards them? There is nothing but a general unanimity—a union with the National Institute of Medicine and Surgery—by which it may be accomplished, and a pressure forward of the mass to legislative acknowledgment. The whole of the mischief is chargeable to the College of Surgeons not being recognised by the Legislature of our country, and leaving it optional to the members of the profession joining it or not. That has led to the bickerings, the slanderings with which young men who have joined this body have assailed every private family they have access to, against men their superiors in every respect. This conduct now recoils on themselves, and in their enmity they will eat the bread of want sooner than their fellow-labourers shall earn that of respectability.

I was led to these remarks by what occurred in my own neighbourhood last Friday. The Clifton Union have built a large poorhouse at Stapleton; the number of inmates it contains is 673; and the guardians fixed the sum of £60 per annum for an attendance at the house twice daily, and providing medicines, &c.; moreover, there is a 6d. tollgate to pass through, which will deduct £9. 2s. 6d. a year from this salary; and the distance at which the two surgeons who offered themselves as candidates for it live is about three miles from the house.

Mr. Mayor, a gentleman of respectability and good practice, by dint of bowing and scraping, and bringing up every *ex-officio* guardian, had a fortunate majority to accept that which in the discharge of its duties must be at least a £50 loss.

That same *mala fides* towards each other has caused many to fall into the other snare of the rate-payers—the district clubs at 2s. and 2s. 6d. per head a year; and this dispite the distance: for some are attended, to my knowledge, seven miles from the surgeon's house; and the clubs at the different parish inns, after the same ratio, are sought and made bones of contention by the same class of men. To what are they reducing the profession? To learn to live on a common journeyman's wages. Let us, my professional brethren, join fellowship, gain a legislative acknowledgment, and then unanimously throw up every situation in the kingdom where a proper reward is not given for services performed; and let the salaries at which the appointments shall be filled be under the control of an appointed committee of medical men, and that, being approved by them, gain it who can; and that gentleman that will not be conformable, let us not acknowledge, assist, or meet him in consultation. Things are now at that pass, that half measures will not do; and we shall find that good will to each other will be the *finis operis*.

J. R. Monday.

Olveston, near Bristol, Nov. 1.

TRIUMPHS OF MODERN SURGERY.

[We extract the following surgical cases "of striking importance" from one of the daily papers].

Extraordinary Operations under the Influence of Ether.—Two cases which have attracted the notice of the medical profession have just occurred at the Royal Free Hospital, Gray's-inn-lane. In both cases disease of the arm existed which required amputation. In the first the limb was removed above the elbow; in the other case the severe operation of amputation at the shoulder-joint was resorted to. The extraordinary effects of ether were manifested in both cases. The name of the first patient is William Stokes, who became insensible to pain on the first administration of ether, and amputation was performed by Mr. Wakley, jun., one of the surgeons of the hospital. When told that the operation was completed, the patient expressed the utmost surprise. The second case (that of Wm. Russell, a shoemaker) is one of still more striking importance. The arm was amputated at the shoulder-joint by Mr. Wakley, jun., in the presence of his colleagues and several other hospital surgeons, the patient being insensible to pain, but conscious of what was going on. This severe operation was completed in the short space of fifty seconds. Both patients are doing well; and the cases furnish additional evidence of the value of the inhalation of ether before the performance of painful operations.

[This is only one of several such statements that have met the public's eye from the same quarter. Are we, *for the future*, to look on such advertisements as an ordinary and legitimate appendage to (Free) Hospital surgeonships?—Ed.]

GOSSIP OF THE WEEK.

War-office, Nov. 5.—38th Foot: Surgeon Frederick Foaker, from the 97th Foot, to be Surgeon, vice M'Illree, who exchanges.—97th Foot: Surgeon John Drope M'Illree, from the 38th Foot, to be Surgeon, vice Foaker, who exchanges.

Naval Appointmetns. — Surgeons: John Clarke, to the Meander; John Stirling, to the Terrible.—Assistant-Surgeons: W. M'Dermott, M.D., from the Albion, to the Vanguard, vice E. Elliott, to the Albion; John C. Austen, to the Petrel; W. H. Fitzpatrick, to the Seagull; John Simpson, to the Meander; W. M'Mahon, to the Blazer; W. Cook, to the Caledonia; John B. Ricardo, to the Victory.

Royal College of Surgeons.—Gentlemen admitted members on the 5th of November:—F. H. Wardlesworth, G. C. Hyde, H. J. Hinxman, A. J. Payne, R. Jones, C. A. Dalgairns, S. Jones, and G. C. Phillips.

The Cholera.—The accounts from Russia relative to the cholera are somewhat contradictory, but the general impression seemed to be that it was decreasing. From Sept. 24, it is stated that no new case had occurred in the town of Saratow, In the other parts of the government of that name the epidemic had decreased considerably, also at Waronesch. Up to Sept. 21, 3558 persons of that town had felt its rage, and 1437 had fallen victims to it. In the province of Tambow the cholera morbus had been slightly felt. At Kasan, up to Sept. 28, there were forty cases and twenty deaths. The news of the cholera having broken out anew in Persia is confirmed by official reports. It was raging with great violence at Hoja and at Tabris, and was advancing towards the provinces of Turkey in Asia. At Berlin a privy council was held on the 21st, in which the measures to check the advance of the Asiatic cholera were taken into consideration. It appears that the Government has given up the idea of stopping the fatal enemy by military force, as it tried to do in 1832. The plan of drawing a military cordon along the frontier is given up, and nothing but a more severe execution of the already very severe Prussian quarantine laws is to be adopted.

Cholera.—Trebisonde has a population of 40,000; 32,000 quitted the suburbs when the report that the cholera was approaching arrived; out of the 8000 that remained, 3000 were struck with the disease, and 1000 sank under it. Great eulogies are passed on the courage and disinterestedness of the two medical men, MM. Sassy and Bogg; their attendance was unremitting, without fear of danger or fatigue.

The Cholera.—The *Universal Gazette of Prussia* publishes the following letter of the 17th from St. Petersburg:—"The cholera makes fresh progress in the two directions which it is following in Russia. It has just broken out in the Governments of Simbirsk, Kasan, Nijni-Novogorod, Riasan, Poltowa, and Tamboff. Thus far, it does not appear disposed to spread on the side of Podolia and Galicia, and it even appears to have very little intensity in that neighbourhood. In that direction it has only shown itself on one point—at Ickaterinoslaf, where it traversed the Dneiper. Without counting Georgia, Caucasus, and the country of the Cossacks of the Black Sea, it already reigns in sixteen governments. On the 30th ult. it broke out at Moscow."

We read in the *Augsburg Gazette*, dated Trieste, Oct. 17:—"The cholera has broken out at Perecop, fifty miles from Odessa, but not at Odessa; it has entirely disappeared from Tangarok and Marcanopel, ports on the Sea of Azof."

A Marseilles paper states that the last news from Constantinople is the decrease of the cholera at Trebisonde.

Poisoned Weapons of the Peruvian Indians.—Among many Indians, particularly in the western and northern districts of the Pampa del Sacramento, the *pocuna* is a weapon much used in hunting. It is made of a long reed, and measures eight or ten feet in length. The arrows

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are not more than two inches long, and are made of a strong cactus stem. These are generally poisoned; but the art of preparing the ingredients is little known to Europeans. The elements are obtained from several plants not yet defined botanically, among which the *apihuasca* and poison capsicum are much resorted to. It is asserted, also, by a modern traveller, upon the authority of an Indian who has often made the poison, that not only the black and poisonous emmet (*Cryptocerco atrato affin*), but also the teeth of the formidable serpent known to the Indians by the name of minumaru, or jergon (*Lachesis picta*), are used for that purpose. The wound of the poisoned arrow is fatal and rapid: men and large mammalia dying in four or five minutes after receiving a wound. No antidote has been discovered.

FEVER IN BELFAST.—We are happy to observe that the materials of the fever camp, which is now empty, are to be disposed of by auction on Thursday, and we are also gratified to learn that there has been a decrease in the week of fever and dysentery patients of 102. We understand that the board of guardians of this union intend purchasing a number of the tents, so that, should the epidemic again increase, the tents will be available. All the articles of bedding will also be retained. We learn that the expenditure rendered essential in order to meet the exigencies of the epidemic amounts to very nearly £13,000.

SURGICAL OPERATION.—We understand that Henry Ridler, of Newern, near Lydney, a fine young man, who met with a compound dislocation of the ankle-joint on his way from the nomination at Dursley by the overturning of an omnibus, has recently undergone amputation of the limb. *It appears he was conveyed to the Gloucester Infirmary at the time of the accident, where he remained for ten weeks with the large bone forming the inner ankle exposed and dislocated. His friends, beginning to feel dissatisfied, had him removed home*, and in three days afterwards the operation was performed by Mr. Batten, of Coleford, and borne with the highest courage and firmness by the unfortunate sufferer, who seems altogether a fine spirited young man; and we are glad to learn that he is almost recovered. —*Correspondent of Gloucester Journal.*—[There must be something wrong here. The Gloucester Infirmary is one of the first in the kingdom. Such statements should not be published without an explanation.—ED.]

Professor Serres commenced his course of lectures "On the Anatomy and Natural History of Man" on Saturday, Oct. 30, at half-past one o'clock precisely; and he will continue them every Tuesday and Saturday, at the Amphitheatre of Anatomy.

The Medical Society of Bolbec, which was reassembled under the presidency of M. Huet, has protested strongly against the Government measure, and declared that it will adhere firmly to the acts of the Medical Congress.

OBITUARY.—On the 5th inst., in Gordon-street, Gordon-square, Robert Richardson, Esq., M.D., aged 68.—Mr. Nathan Kennicott, surgeon, of Houghton-le-Spring, in the county of Durham, died on the 8th inst. of typhus, contracted while discharging his duties as surgeon to the poor-law union of that place. Here is another victim added to the fearful catalogue of professional sacrifices; another example of a valued life fatally risked for the advantage of the many, who little appreciate their devotion.—On the 28th ult., at Warrington, aged 25, John Hinde Gandy, of typhus fever, caught in the discharge of his duties as house-surgeon to that dispensary. He had prosecuted his professional studies at King's College, London, with uncommon zeal and assiduity. He was a young man of great promise, and possessed naturally of the best of dispositions. His late teachers and former fellow-students will grieve over his untimely loss; but for those who knew him more intimately, there will still remain higher and better consolations.

MORTALITY TABLE.

For the Week ending Saturday, Nov. 6, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	1052	1046
SPECIFIED CAUSES...	1051	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	326	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	105	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	120	157
Diseases of the Lungs, and of the other Organs of Respiration	281	333
Diseases of the Heart and Blood-vessels.....	40	34
Diseases of the Stomach, Liver, and other organs of Digestion	85	74
Diseases of the Kidneys, &c.	17	9
Childbirth, Diseases of the Uterus, &c.	13	14
Rheumatism, Diseases of the Bones, Joints, &c. ...	11	7
Diseases of the Skin, Cellular Tissue, &c.	3	2
Old Age.....	42	65
Violence, Privation, Cold, and Intemperance.....	8	29

TO CORRESPONDENTS.

"Dr. Breton."—The paper in reference to the defunct periodical is respectfully declined. "De mortuis nil, nisi bonum," is our maxim.

"Senex."—We are sorry that so many papers which are considered respectable should admit quack advertisements, as they are decidedly injurious, not only to the morals of those who read them, but to the health of those who are silly enough to try their nostrums.

"Mr. Sams."—The paper duly reached us, but, as the facts had already appeared in our columns, we did not consider it necessary again to advert to them.

"A Reader and Contributor."—We regret our correspondent's disappointment. Were we to publish all the articles received, the *Medical Times* would be increased to double its present size. A well-written article on the subject mentioned shall, however, obtain an early insertion.

"Tyro."—The mismanagement of the hospital tells sadly against its usefulness, not only to patients but medical pupils. The entrance-money would have been laid out to greater advantage elsewhere.

"An Old Reformer."—We shall not loose sight of the party and their doings. Sound reform has been too long perilled by the conduct of unprincipled individuals.

"Lector, Brighton."—The case was published about two months ago, and was considered not only singular, but as presenting many points of especial interest.

"Medicus."—The new mode of treating cholera we do not consider exactly adapted to our pages; "the theory and practice" being too much opposed to well-known facts.

"A Country Practitioner."—There is a course of microscopical demonstrations delivered by Mr. Queekett, in the theatre of the Royal College of Surgeons, to which all members of the College are admitted gratuitously.

"Amicus Justiciæ."—We cannot admit anonymous attacks upon the characters of individuals. If our correspondent has stated the truth he will not hesitate to transmit us his name, in confidence, without which his paper will be returned according to request.

"Zeta."—The communication has been received, and will be inserted shortly.

"Inquirer."—The questions are not within the province of the editor of a medical journal to answer. They had better be sent to some respectable newspaper.

"M. F. F."—The governors of the Norwich Hospital have had a meeting upon the subject of the abuses in the institution, and we have little doubt that some amendment will take place in the management.

"Beta."—We fear there are great difficulties in the way of securing the appointment. We think it both necessary and advisable to undergo the examination referred to.

"A Non-medical Reader."—There is no doubt that the gentleman referred to cannot recover for medicine and attendance in cases not surgical. If the case be a surgical one, then a fair sum may be obtained at law for work and labour done.

"D. M."—We shall be happy to receive the articles on the cholera promised by our correspondent.

"Mr. Thomas Brown, Castle Donnington."—We are aware that large towns are not the only places which require sanitary reform. Villages often suffer from diseases evidently produced by inefficient drainage, and ill-constructed and badly-ventilated cottages. Our correspondent says, "Within the last three months I have witnessed the sad effects of a pestilential effluvium (arising from a drain fronting the dwelling) in a family of nine individuals, six of whom have been under my care for typhus fever; and though, happily, only one fell a victim, still the constant escape of this poisoned atmosphere has seriously retarded recovery, and seldom fails in giving rise to disorders of a minor character, which will eventually undermine the constitution, and bring its victims to a premature grave." The evils of the club system shall receive an early notice.

"Mr. P. Brady."—The request shall be attended to.

"N. G."—A member of the Edinburgh College can legally sign a certificate for placing a patient in a lunatic asylum.

"Mr. Bellamy, Hammersmith."—We shall be glad of the papers, and will attend to the requests made.

"A Member of the Institute."—We cannot say what is the exact state of the funds. We believe they are in a flourishing condition.

"A Poor-law Guardian."—The communication is inadmissible, reflecting, as it does, on the character of the poor-law medical attendant, who is evidently very badly paid, and very scurvily treated. We would advise our correspondent to exhibit a better spirit, and a greater anxiety to do justice.

"T. C. D., Dublin."—The numbers requested shall be sent without delay.

"Chemicus" had better apply to the Editor of the *Pharmaceutical Times*.

"A Subscriber to the Medical and Pharmaceutical, Crown-street, Manchester."—Our arrangements are such, that we hope shortly to publish the proposed course. The other suggestions contained in our correspondent's letter will be attended to.

"Mr. W. S. Masterman, Wine-office-court, Fleet-street."—The communication in reference to poor-law union surgeons has been received, and will probably be inserted next week. The movement is progressing advantageously.

"Mr. John Jackson, Long Clawson, Melton Mowbray."—The communication has come to hand, and, if possible, we will comply with the request of our correspondent.

"A Country Subscriber."—We think, that when a general practitioner is summoned to attend before magistrates to give evidence in cases where a culprit is sentenced to imprisonment, he cannot recover a fee. It is, indeed, a great hardship to ride many miles, and neglect other duties, without the prospect of a fair remuneration.

"Dr. Nicholson's" paper on Lunatic Asylums will probably appear next week.

"Iatros."—The prices are various at which electro-galvanic apparatus are sold.

"Sigma."—We would recommend Chelius's work, edited by Mr. South.

"Pro Bono Publico, County Down, Ireland," writes, "It would be for the advantage of the profession, and also the public, if the Dublin Apothecaries' Company would exercise their right in suppressing non-licensed medicine-venders, who infest the north to a fearful extent, and other parts of Ireland. It would be well, also, if the Irish medical publications would take a lesson from your *Times* in supporting the dignity of the profession."

"Not a Parish Surgeon" would suggest "the propriety of forwarding to quarters where it is likely to meet with attention, a list of the members of the profession, more particularly union surgeons who, during the past twelve months, have fallen victims to their humane zeal." "It is dreadful," he writes, "to reflect upon the numbers who are at this time exposing themselves to imminent peril for the paltry and degrading stipend doled out by men who would be ashamed to offer the same sum to a mechanic for his weekly wages; who are ignorant of the services they attempt to reward, and who would shrink from the duties they award. It is literally men's lives they rent—nay, almost demand gratuitously; and it remains for the profession to assert their rank and social position, as well as to perform a duty sacred and imperative—the providing for those who may be left behind, helpless and dependent, to mourn their loss."

"A Poor Doctor."—In a very short time every union surgeon will be communicated with by the Committee. We have no doubt that an effectual result will be secured.

"Philo-Denman" must excuse our omission of his long paper. Dr. T. Smith scarcely justifies an obstetric pother. We refer to his authority on "Stuttering," but would reluctantly dedicate a line to his opinions on midwifery.

"A Country Practitioner."—The National Institute was never more useful than it will be during the coming season. The Council, we understand, is at this moment in communication with Sir G. Grey.

Letters and communications have also been received from Pro Bono Publico, County Down, Ireland; Not a Parish Surgeon; Sigma; Iatros; Dr. Nicholson; A Country Subscriber; Mr. John Jackson, Long Clawson, Melton Mowbray; Mr. W. S. Masterman, Wine-office-court; A Subscriber to the Medical and Pharmaceutical, Crown-street, Manchester; Chemicus; T. C. D., Dublin; A Poor-law Guardian; A Member of the Institute; Mr. Bellamy, Hammersmith; N. G.; Mr. P. Brady; Mr. Thomas Brown, Castle Donnington; D. M.; A Non-Medical Reader; Beta; M. F. F.; Inquirer; Zeta; Amicus Justiciæ; A Country Practitioner; Medicus; Lector, Brighton; An Old Reformer; Tyro; A Reader and Contributor; Mr. Sams; Senex; Argus; Philo-Denman.

A HANDSOME PORTFOLIO for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

COVERS FOR BINDING the Numbers of the "MEDICAL TIMES" are now ready, and may be had, by order of any Bookseller, or at the Office, price 1s. 6d.

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No. 425. Nov. 20.

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A COURSE
OF
LECTURES ON SURGERY.
BY
SAMUEL COOPER, Esq., F.R.S.,

Professor of Surgery to University College, London; Consulting Surgeon to London University Hospital, &c.

Lecture XVIII.

In my last lecture I told you that indolent ulcers were very much benefited by pressure well regulated, and I mentioned the plan introduced by Mr. Baynton, of making it by means of adhesive plaster or strapping. You may attain the same end by the use of the common bandage or, still better, by the stocking bandage. The part must then be overlaid with soft linen, and the whole evenly covered with a calico roller. The plaster will not require changing oftener than every other day, unless the discharge should be very profuse. You will find that indolent ulcers, when first brought into the hospital, are generally in a very foul condition; and under those circumstances it is good to apply poultices and emollient applications. Generally speaking, emollient applications are injurious; but, from the bad condition under which they come under your treatment, it is well, for the sake of cleaning the sore, to poultice it for the first twenty-four hours, then to rub the thick callous skin round the edges of the sore, and likewise the ulcer, with nitrate of silver, and afterwards to apply strapping so as to cover the entire surface of the ulcer. When the ulcer is on the nether part of the leg, or on the foot, you may divide your plaster into straps of fifteen inches long and two wide, and apply them thus—the foot being placed in its natural position relative to the leg, one of the straps is applied to the great toe, along the inner edge of the foot, round the os calcis to the first joint of the little toe; the middle of another strap is placed under the heel, and its ends carried up perpendicularly on both sides of the leg; in this way the circular and perpendicular straps are applied alternately until the foot and ankle are completely covered; the foot and ankle are kept perfectly quiet, while the necessary pressure is also ensured. The kind of treatment I hear mention is, I believe, for many ulcers, but especially for those on the leg, the best that can be adopted. Sores of this character occur much too often in hospitals—that is to say, they take up by far too much accommodation, as room, beds, &c., which is required for other purposes.

I need hardly tell you that, where a sore of this character has existed for a length of time, it is very difficult to heal; after it appears to have progressed towards a healthy state, upon a very slight constitutional derangement, it will be very apt to break out again and soon become as bad as ever. At St. Bartholomew's Hospital laudanum was tried in the treatmeat of these old sores, but I do not hear much of it at present. I therefore suppose that, like that of many other modern introductions, its employment is on the decline.

The next description of these sores which we shall consider is the *irritable* ulcer, a very severe kind, always difficult to heal, and sometimes fatal. I have already explained to you that ulcers partake very much of the nature of the constitution of the subjects in whom they occur; if, therefore, the state of the system is irritable, the ulcer will partake of that character also. The irritable ulcer has sometimes been thought not to be distinguishable from the inflammatory ulcer, but the fact is they are very different. The irritable ulcer is very liable to attacks of inflammation, but every inflammation is not irritable. Sir Everard Home corroborates this view by observing that you cannot always know the irritable ulcer by its appearance, and not till you apply some gentle stimulating application as to make pressure, does its true character become manifest; whereas the inflamed ulcer is always to be known by its aspect. Mostly there is imperfect granulation or none at all; the sore is reddish, with sometimes a yellowish tinge; the discharge is thin and bloody, and the surface, if only touched in the gentlest manner with the probe, bleeds readily. The patient complains of pain, not only in the ulcer but also in other parts of the limb. Many patients under the action of these ulcers have derangement of general health, are restless, or cannot sleep at night; complain of loss of appetite, have a hot skin, white tongue, and feel pain about the epigastrium. The digestive organs suffer derangement, and in women the menstrual functions. Many of these ulcers are brought on by intemperance, and, as far as my experience has gone, they occur chiefly among the rich and middle-aged; seldom in persons under forty. Where a great variety of causes are concerned in bringing about a disorder, you must at once perceive that a great difference may very well exist in the methods of treatment. A person may have at first a common ulcer, healthy or indolent, but, in consequence derangement of one kind or another, it it may put on the irritable form; another patient may have an irritable ulcer from the first, from constitution or other causes; I have attended many of such a constitution. In the treatment you must endeavour to remove the exciting cause: where you have, for instance, great biliary derangement, you must clear the stomach and follow up with brisk stimulants and purgatives; afterwards, disulphate of quinine, sulphuric acid, or bark with bichlorate of soda, are to be employed. When the menstrual functions are deranged, and the usual discharge is suspended, you must use means to restore the action of the uterus. Often you have to do with plethoric subjects; the patient has too much blood, and you find from his history that he indulges in the pleasures of the table; here you have recourse to depletion, local and general bleeding, followed in a day or two by calomel and saline aperients; but all these require, after a time, to be followed by tonic medicines, which come in with great efficiency; opium too, as an internal medicine, is not to be forgotten in irritable sores. Ipecacuanha or hydro-chlorate of morphia, in half-grain doses, may be administered, and often do great good. The local treatment is generally best begun with soothing applications, avoiding pressure; if you produce pressure on an irritable sore, you turn it into a sloughing ulcer; you must, therefore, do all you can to remove pressure on the sore, and sooth the part by proper applications. You may begin with tepid water, or bathe it in a decoction of poppy-heads.

A warm, soft poultice, made with the lotion of the acetate of lead, or with water diluted with solution of hyosciamus or opium, is added. A dressing of lint steeped in tepid water, and covered with oiled silk to keep it moist, will generally be beneficial.

Another thing of importance to be attended to is the position of the limb; this must be placed in a posture most favourable to the return of blood; this, it may be remarked, is a rule applicable to all wounds of the lower extremities. After a time you may venture on the use of gentle stimulants. Some practitioners are in favour of using nitrate of silver, which is believed to have the property of lessening the irritability of the parts; and we know that in strictures of the urethra it is used to reduce the tendency to spasm, and formerly it was used much more than at present; now, in irritable sores many, after beginning with soothing applications, touch them gently with nitrate of silver, and also the skin adjoining, as freely as in the indolent ulcer. I told you that, in applying the caustic to healthy sores after granulations had begun to form, you were not to touch the new film or pellicle; but in the cure of indolent and irritable ulcers you must follow a different plan, and apply the nitrate of silver immediately to the edge, and afterwards cover the whole with a soft, well-made poultice. A lotion composed of from five to ten grains of opium in an ounce of distilled water, or of two to five drops of nitric acid, is a very useful application. The black wash or lotion, consisting of eight or ten grains of calomel to one ounce of lime-water, is sometimes employed with great benefit.

Sir Astley Cooper had tried, in several cases where he was concerned, a lotion composed of a pint of distilled water and twenty-five drops of nitric acid. I was one summer passing through Southampton, and was requested by a practitioner of that town to visit with him a gentleman under his care who had an irritable ulcer of four or five months' standing, which had been treated in a great variety of ways unsuccessfully; the last-mentioned dressing was used, and it rapidly cured the patient without internal treatment. I have generally found that the internal treatment is as essential as the application, and must be directed against the peculiar cause of the ulcer. One case of this description which I attended was in a member of our profession, the late Mr. Upton, who had a most irritable ulcer on the shin, and he was also of a very irritable temperament; every means had been tried with scarcely

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any success, and one thing which made the treatment fail was that he would not be kept in bed. It has often been said that surgeons do not make good patients, and certainly he was one who did not. Although the sore was an irritable one, the adhesive plaster was employed, but put on not very tightly, and it proved more useful in his case than any other that could be found, while he was walking about.

The situation of ulcers, and the local circumstances under which they form, have much to do with their subsequent progress; where they form near the elbow or other joints, the motion of such joints hinders healing; I have, therefore, very often made use of a splint to prevent any injury from this cause, and have found it to be of great service.

The next division of ulcers which we shall notice is that of ulcers arising from a varicose state of the veins of the lower extremities—sometimes, on that account, called varicose ulcers, but, more properly, they may be called ulcers depending on varicose veins. When the veins are varicose, all the capillary veins connected with them become distended with blood, the circulation becomes obstructed, and thus gives rise to chronic inflammation of the skin in ulcers; these sores are mostly situate on the inner side of the leg, often near the ankle, and sometimes also on the instep. Their shape is mostly oval, with the long diameter downwards; their colour is a darkish red, which is what you might expect when you consider that the return of venous blood is obstructed. This, also, makes plain one of the means to be used for curing the ulcer, namely, the promotion of the return of the venous blood, sometimes by placing the limb on an inclined plane. When persons come into hospitals, you often find the sores have been very much neglected; under these circumstances, you not only then place the limb favourably for the return of blood, but also apply leeches and simple dressing, administer purgative medicines, and keep the patient in bed. In connection with this treatment, you will also have to employ the cold evaporating lotions, or, as the case may require, fomentations, which agree with some ulcers better than the former. Afterwards, with a view to reduce the varicose state of the veins, you must apply equable pressure, by means of bandages carried up to the knee; and in this way you will generally be able at least to free the patient for some time from any annoyance of the ulcer.

Some ulcers will not yield to this treatment, but soon after the patient quits his room they break out again. You will then be justified in certain proceedings having for their object the obliteration of these veins, so as to excite arterial blood to take another course.

Another sore to be described, is called *phagedænic*. This name has been given to it on account of its presenting a great irregularity of surface, as if the parts had been gnawed away. We see in this country that it principally arises from syphilis. I have witnessed the most horrible cases of this kind of disease; I have seen the femoral artery exposed; I have seen the soft parts of the arm, from the hand to the axilla, even utterly destroyed; they are more generally found consequent upon the abuse of mercury than from any other circumstance. Then it is well known in some of the great hospitals of this town; amongst a certain class of subjects—the lowest order of prostitutes—it prevails to a remarkable extent in one particular spot. I do not at all suppose you know the place—near St. Katharine's Dock, I do not know just where, called Swan-alley; and so notorious is this place that it has given name to this phagedæna, which is called the Swan-alley sore. It occurs in these girls from the particular manner in which they live; they exist in a constant state of excitement, they live in a contaminated air, and have allowed them very little fresh meat, but are kept alive by bad fish and gin; they are maintained by Jews and Jewesses, and live as many as twelve in a house, and have to serve the foreign sailors as well as the English. You cannot wonder that, when their constitution has been so utterly ruined by such early vice, even a small pimple should assume a phagedenic character. It occurs in the cleft of the nates, in the folds of the groin, and on the thigh, and destroys all the soft parts. A severe darting pain, at first remittent but afterwards incessant, attends the disease; the exposed substance is covered with a straw-coloured flocculent substance and a viscid secretion. The edges of the sore are strongly defined, and connected with a mass of swollen, rugged integuments. Hemorrhage soon comes on, and, constantly recurring, exhausts the patient's strength. The fetidness of the discharge is of that nature as to render the ward almost insufferable, and to indicate to a man of experience the character of the disease.

ORIGINAL CONTRIBUTIONS.

DISCOVERY OF A NEW ANÆSTHETIC AGENT MORE EFFICIENT THAN SULPHURIC ETHER.

By J. Y. SIMPSON, M.D.,
Professor of Midwifery in the University of Edinburgh, Physician-Accoucheur to her Majesty in Scotland, &c.

At the first winter meeting of the Medico-Chirurgical Society of Edinburgh, held on the 10th Nov. last, I had an opportunity of directing the attention of the members to a new agent which I had been using for some time previously for the purpose of producing insensibility to pain in surgical and obstetric practice.

This new anæsthetic agent is chloroform, chloroformyle, or perchloride of formyle.(a) Its composition is expressed by the chemical formula $C_2 H Cl_3$. It can be procured by various processes, as by making milk of lime or an aqueous solution of caustic alkali act upon chloral; by distilling alcohol, pyroxilic spirit, or acetone with chloride of lime; by leading a stream of chlorine gas into a solution of caustic potass in spirit of wine, &c. The resulting chloroform obtained by these processes is a heavy, clear, transparent liquid, with a specific gravity as high as 1·480. It is not inflammable. It evaporates readily, and boils at 141°. It possesses an agreeable, fragrant, fruit-like odour, and a saccharine, pleasant taste.

As an inhaled anæsthetic agent, it possesses, I believe, all the advantages of sulphuric ether, without its principal disadvantages.

1. A greatly less quantity of chloroform than of ether is requisite to produce the anæsthetic effect, usually from a hundred to a hundred and twenty drops of chloroform being sufficient, and with some patients much less. I have seen a strong person rendered completely insensible by seven inspirations of thirty drops only of the liquid.

2. Its action is much more rapid and complete, and generally more persistent. I have almost always seen from ten to twenty inspirations suffice, sometimes fewer. Hence the time of the surgeon is saved; and that preliminary stage of excitement which pertains to all narcotizing agents being curtailed, or, indeed, practically abolished, the patient has not the same degree of tendency to exhilaration and talking.

3. Most of those who know from previous experience the sensations produced by ether inhalation and who have subsequently breathed the chloroform, have strongly declared the inhalation and influence of chloroform to be far more agreeable and pleasant than those of ether.

4. I believe that, considering the small quantity requisite as compared with ether, the use of chloroform will be less expensive than that of ether, more especially as there is every prospect that the means of forming it may be simplified and cheapened.

5. Its perfume is not unpleasant, but the reverse; and the odour of it does not remain for any length of time attached to the clothes of the attendant, or exhaling in a disagreeable form from the lungs of the patient, as so generally happens with sulphuric ether.

6. Being required in much less quantity, it is much more portable and transmissible than sulphuric ether.

7. No special kind of inhaler or instrument is necessary for its exhibition. A little of the liquid diffused upon the interior of a hollow-shaped sponge, or a pocket-handkerchief, or a piece of linen or paper, and held over the mouth and nostrils so as to be fully inhaled, generally suffices in about a minute or two to produce the desired effect.

I have had an opportunity of using chloroform with perfect success in several surgical operations (removal of tumours, of necrosed bone, partial amputation of the great toe), and in tooth-drawing,(a) opening abscesses, for anulling the pain of dysmenorrhœa and of neuralgia; in two or three cases where I was using deep and otherwise very painful galvano-puncture for the treatment of ovarian dropsy; in removing a very large fibrous tumour from the posterior wall of the uterus by enucleation, &c.(b)

I have employed it also in obstetric practice with entire success. The lady to whom it was first exhibited during parturition had been previously delivered in the country by craniotomy, after a labour of three days' duration. In this, her second confinement, pains supervened a fortnight before the full time. Three hours and a half after they commenced, and ere the dilatation of the os uteri was completed, I placed her under the influence of the chloroform by moistening, with half a teaspoonful of the liquid, a pocket-handkerchief rolled up in a funnel shape, and with the broad or open end of the funnel placed over her mouth and nostrils. In consequence of the evaporation of the fluid it was once more renewed in about ten or twelve minutes. The child was expelled in about twenty-five minutes after the inhalation was begun. The mother subsequently remained longer soporose than commonly happens after ether. The squalling of the child did not, as usual, rouse her; and some minutes elapsed after the placenta was expelled, and after the child was removed by the nurse into another room, before the patient awoke. She then turned round, and observed to me that

(a) In making a variety of experiments upon the inhalation of different volatile chemical liquids, I have, in addition to perchloride of formyle, breathed chloride of hydro-carbon, acetone, nitrate of oxide of ethyle, benzin, the vapour of iodoform, &c. I may probably take another opportunity of describing the results. It is, perhaps, worthy of remark, that, in performing his experiments upon inhalation, Sir Humphrey Davy confined his attention to the inspiration of gases, and does not seem to have breathed any volatile liquid.

(a) A young dentist, who has himself had two teeth extracted lately—one under the influence of ether, and the other under the influence of chloroform—writes me the following statement of the results:—"About six months ago I had an upper molar tooth extracted whilst under the influence of ether, by Mr. Imlach. The inhalation was continued for several minutes before I presented the usual appearance of complete etherization; the tooth was extracted, and, although I did not feel the least pain, yet I was conscious of the operation being performed, and was quite aware when the crash took place. Some days ago I required another molar extracted on account of toothache, and this operation was again performed by the same gentleman. I inhaled the vapour of chloroform, half a drachm being poured upon a handkerchief for that purpose, and held to my nose and mouth. Insensibility took place in a few seconds; but I was so completely *dead* this time that I was not in the very slightest degree aware of anything that took place. The subsequent stupifying effects of chloroform went off more rapidly than those of ether, and I was perfectly well and able for my work in a few minutes."

(b) I have now exhibited chloroform to about fifty individuals, and in not one has the slightest bad effect of any kind resulted.

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she had "enjoyed a very comfortable sleep, and, indeed, required it, as she was so tired, (a) but would now be more able for the work before her." I evaded entering into conversation with her, believing, as I do, that the most complete possible quietude forms one of the principal secrets for the successful employment of either ether or chloroform. In a little time she again remarked that she was afraid her "sleep had stopped the pains." Shortly afterwards her infant was brought in by the nurse from the adjoining room, and it was a matter of no small difficulty to convince the astonished mother that the labour was entirely over, and that the child presented to her was really her "own living baby."

Perhaps I may be excused from adding that, since publishing on the subject of ether inhalation in midwifery, seven or eight months ago, (b) and then for the first time directing the attention of the profession to its great use and importance in natural and morbid parturition, I have employed it, with few and rare exceptions, in every case of labour that I have attended, and with the most delightful results; and I have no doubt whatever that some years hence the practice will be general. Obstetricians may oppose it, but I believe our patients themselves will force the use of it upon the profession.(c) I have never had the pleasure of watching over a series of better and more rapid recoveries; nor once witnessed any disagreeable result follow either to mother or child; whilst I have now seen an immense amount of maternal pain and agony saved by its employment. And I most conscientiously believe that the proud mission of the physician is distinctly twofold, namely, to alleviate human suffering, as well as to preserve human life.

In some remarks which I published in "The Monthly Journal of Medical Science" for Sept., p. 154, relative to the conditions for ensuring successful etherization in surgery, I took occasion to insist upon the three following leading points:—"First, the patient ought to be left, as far as possible, in a state of absolute quietude and freedom from mental excitement, both during the induction of etherization, and during his recovery from it. All talking and all questioning should be strictly prohibited. In this way any tendency to excitement is eschewed, and the proper effect of the ether inhalation more speedily and certainly induced. And secondly, with the same view, the primary state of exhilaration should be entirely avoided, or at least reduced to the shortest possible limit, by impregnating the respired air as fully with the ether-vapour as the patient can bear, and by allowing it to pass into the lungs, both by the mouth and nostrils, so as rapidly and at once to induce its complete and anæsthetic effect * * * a very common, but certainly a very unpardonable, error being to exhibit an imperfect and exciting, instead of a perfect and narcotizing, dose of the vapour. Many of the alleged failures and misadventures are doubtless entirely attributable to the neglect of this simple rule; not the principle of etherization, but the mode of putting it in practice being altogether to blame. But, thirdly, whatever means or mode of etherization is adopted, the most important of the conditions required for procuring a satisfactory and successful result from its employment in surgery, consists in obstinately determining to avoid the commencement of the operation itself, and never venturing to apply the knife, until the patient is under the full influence of the ether-vapour, and thoroughly and indubitably soporized by it."

In fulfilling all these indications the employment of chloroform evidently offers great and decided advantages in rapidity, facility, and efficiency over the employment of ether. When used for surgical purposes, I would advise it to be given upon a handkerchief, gathered up into a cup-like form, in the hand of the exhibitor, and the open end of the cup placed over the mouth and nostrils of the patient. For the first inspiration or two it should be held at the distance of an inch or so from the face; and then more and more closely applied to it. To ensure a full and perfect anæsthetic effect—more especially when the operation is to be severe—a teaspoonful of the chloroform should at once be placed upon the hollow of the handkerchief, and immediately held to the face of the patient. Generally a snoring sleep very speedily supervenes; and when it does it is a perfect test of the superinduction of complete insensibility. But many patients are quite anæsthetic without this symptom.

As an illustration of the influence of this new anæsthetic agent, I will select and append notes of two operations performed with it on Friday last by Professor Miller—the first in the Royal Infirmary of Edinburgh (a); the other in private practice. The notes and remarks are in Mr. Miller's own words.

Case I.—"A boy, four or five years old, with necrosis of one of the bones of the forearm. Could speak nothing but Gaelic. No means, consequently, of explaining to him what he was required to do. On holding a handkerchief, on which some chloroform had been sprinkled, to his face, he became frightened, and wrestled to be away. He was held gently, however, by Dr. Simpson, and obliged to inhale. After a few inspirations he ceased to cry or move, and fell into a sound snoring sleep. A deep incision was now made down to the diseased bone; and, by the use of the forceps, nearly the whole of the radius, in the state of sequestrum, was extracted. During this operation, and the subsequent examination of the wound by the finger, not the slightest evidence of the suffering of pain was given. He still slept on soundly, and was carried back to his ward in that state. Half an hour afterwards he was found in bed, like a child newly awakened from a refreshing sleep, with a clear merry eye, and placid expression of countenance, wholly unlike what is found to obtain after ordinary etherization. On being questioned by a Gaelic interpreter who was found among the students, he stated that he had never felt any pain, and that he felt none now. On being shown his wounded arm, he looked much surprised, but neither cried nor otherwise expressed the slightest alarm."

Case II.—"A young lady wished to have a tumour (encysted) dissected out from beneath the angle of the jaw. The chloroform was used in small quantity, sprinkled upon a common operation sponge. In considerably less than a minute she was sound asleep, sitting easily in a chair, with her eyes shut, and with her ordinary expression of countenance. The tumour was extirpated, and a stitch inserted, without any pain having been either shown or felt. Her sensations throughout, as she subsequently stated, had been of the most pleasing nature; and her manageableness during the operation was as perfect as if she had been a wax doll or a lay figure.

"No sickness, vomiting, headache, salivation, uneasiness of chest, in any of the cases. Once or twice a tickling cough took place in the first breathings."

Edinburgh, Nov. 15.

(a) In consequence of extreme anxiety at the unfortunate result of her previous confinement, she had slept little or none for one or two nights preceding the commencement of her present accouchement.

(b) See "The Monthly Journal of Medical Science" for Feb., p. 639; March, p. 721, &c.

(c) I am told that the London physicians, with two or three exceptions only, have never yet employed ether inhalation in midwifery practice. Three weeks ago I was informed in a letter from Professor Montgomery, of Dublin, that he believed that in that city, up to that date, it had not been used in a single case of labour.

(a) Professor Dumas (of Paris), Mr. Milne Edwards, Dr. Christison, Sir George Ballingall, and a large collection of professional gentlemen and students witnessed this operation and two others performed with similar success by Professor Miller and Dr. Duncan.

ON THE APPLICATION OF CHEMISTRY TO THE DETECTION OF CRIME, AND TO THE PRESERVATION OF THE PUBLIC HEALTH.

By H. LETHEBY, Esq., M.B., &c.,
Lecturer on Chemistry at the London Hospital.

An Abstract of a Lecture delivered at Sussex-hall and other Literary and Scientific Institutions.

Dr. Letheby commenced by referring to the important and onerous duties which the medical man was too often called upon two perform; that in almost every case of sudden death, in every instance of murder, and upon the visitation of every contagious malady and scourge, he was looked to as the interpreter of death; upon his judgment rested the most important of all the evidence which related to the question. How necessary, therefore, was it that he should enlist every faculty of observation, and every well-ascertained principle of science, to help him in this judgment. The frequent appeals thus made to him had led to the foundation of a science denominated "Medical Jurisprudence": in it the experience of ages had been brought together so as to qualify him for his work, and to make medicine and its collateral branches subservient to the construction, elucidation, and administration of the law, and to the preservation of the public health. One especial and very important division of this science is "Toxicology": it is devoted to the detection of poisons, whether lurking unseen amidst the natural elements, and slowly but surely working man's destruction; or whether moving, with an assassin's swiftness, home to his life at once: in both cases the whole duty of its discovery rested with the chemist. It is hardly necessary (continued the lecturer) that we should dwell upon the momentous character of this duty, or upon the influence which it has over the well-being of society; in these times, as in all other times, the secret agent of the poisoner had become the terror of all; no power could be more fearful, no agent more certain in its results; its influence was with all classes of society; there was no privacy beyond its reach; and no precaution, or hardihood, or bravery, a sufficient protection. Was it necessary to ask how far might be the extent of his practices, if the efforts of the chemist had not succeeded in bringing them to the light, and in furnishing a means of exhibiting the undoubtable evidence of his guilt? It is strange, however, considering the important character of this question, that it is hardly twenty years since science was appealed to, to lend her aid to the law in thus tracking the footsteps of the unseen murderer; and it is the more strange, when we remember that, from days long gone by, it was believed that an accomplished poisoner was not only able to ensure the death of his victim through the most secret and least suspicious agents, but that he was able also to measure out his allotted moments with the nicest precision, and to cause his death at any period and in any way best suited to the objects of the assassination: so says Dr. Paris; and he tells us that the writings of Plutarch, Tacitus, Theophrastus, Quintillian, Livy, and others abound with instances of slow and occult poisoning. Livy has informed us of the immense extent to which it was practised even as far back as 300 years before the Christian era, and that too by parties who were above all suspicion; it must have been common, indeed, when during the consulate of Fabius Maximus, such a number of Roman ladies could have framed that monstrous conspiracy for the destruction of their husbands, when so many as 170 of them should have been detected and publicly executed. One noble damsel of the name of Locusta had, in fact, become so expert in the preparation of her drugs, that, after having poisoned some hundreds of her fellow-creatures, she was convicted and condemned to die; but her talents were considered of so excellent a nature, she was saved in order that she might become a state engine, and be numbered, as Tacitus expresses it, *inter instrumenta regni;* and her powers were not suffered to lie dormant. The records, also, of more modern

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times furnish examples of no less atrocious practices. Tophana, a woman who resided first at Palermo, and afterwards at Naples, was quite equal to Locusta: she invented and sold those poison-drops which were the horror of all Europe. They were known by the several names of *aqua Toffania*, *aqua della Toffana*, *acquetta de Napoli*, or simply *acquetta*; and sometimes they bore the pious name of the *manna of Saint Nicholas*, because the bottles containing the drops were frequently ornamented with a figure of that saint. This Stygian liquor she distributed with much charity and consideration to such wives as wanted other husbands; and there can be no doubt that she sent thousands to their last account. About this time some of her pupils made their way into France, and secret poisoning got to be practised there also to a fearful extent. Saint Croix and the Marchioness of Brinvilliers were two of the most celebrated adepts: the latter poisoned her two brothers, through the medium of a dish at table; she prepared poisoned biscuits, and to try their strength distributed them herself to the poor at the Hôtel Dieu; her own maid was likewise the subject of her experiments. To her father she gave poisoned broth; and, in fact, there is no knowing how many of her relatives and friends were sacrificed to her ignominy. The practice of secret poisoning in France, however, was not limited to these individuals; it was so common and frightful in the year 1679 that it was found necessary to establish a particular court for the detection and trial of such offenders; and in our own country, too, efforts were made to put it down, and Henry VIII. passed a law that persons convicted of poisoning should be boiled to death. But (continued the doctor), to pass over a world of the terrible instances of those times, and to come to our own, let us ask how is it with us? We shall have no difficulty in answering this question: every man of experience and observation will tell you that secret poisoning is carried on to as great an extent as it ever was. I have but to refer to the public press for daily instances of it, and my own experience also tells me that it is a common crime. Even during this last week I have been engaged in eight cases of poisoning, and I look upon it that these are but mere glimpses at the demon who is abroad; we have not yet seen him in all his magnitude, nor shall we, unless power is given to us to hunt him down; he is with us, too, in another shape, lurking amidst the filth and wretchedness of the poor, tainting the atmosphere they breathe, poisoning the food they eat, preying upon human health and life, and now beckoning to our shores the other revellers of his court; and soon they will be among us. It is strange, I say, considering the magnitude of these evils, that science has not been appealed to earlier and oftener to put them down; nor can I leave this point of our subject without directing attention to the great sources of so much mischief. Here is one of them; and it is the cover under which the assassin glides. It frequently happens in cases of sudden death that no judicial inquiry of any kind is instituted, or, if there is, it is too often performed in the most hasty and slovenly manner, without taking any of those measures which are requisite for the detection of crime; or, as I have known this to be the case, and have known it often too within my own practice, that when the cause of death has been discovered, and the act of the poisoner laid bare, the whole business has been smothered up, either on account of some irregularity in the coroner's proceedings, or for fear of the expense which a prosecution might entail upon the state or county. Look at the exposures which so many cases of poisoning have exhibited during the last year; what do they show but the farcical proceedings of our country coroners; the sanctity of the grave violated; bodies exhumed years after death; tortured again, and made to tell this tale, that they had come by an untimely end; that their murderers had been loose upon society for years, practising their hellish tricks with more and more success; and that he whose duty it was to learn all this, had slunk it over to save himself from trouble and the country from some poor fee. Why, where is the use of such an officer? Jurors are mad to let him have such power. Well may I point to him as one great source of all this mischief; and look you, here is another—here in the literature, as it is misnamed, of our day; here, in the worst of books written by the worst of men. Turn to your Eugene Sues, to your Lucretias, to your stories of Saint Croix, Brinvilliers, Laffarge, and see there the worst of crimes extolled, villains made heroes, and every action of their lives detailed in so much grandeur that it gives the impulse to a morbid mind, and makes it go and do so likewise. It is in this way that your Borgias, and your Medicis, and your other demons of past time are decked in all the finery of language, and held up for public sympathy and pattern; it is in this way that your popular novels have become hand-books of murder, and their writers traders in crime. Let me give you this precious specimen from one of them, and I will merely read a single sentence of a conversation between a count who professes to teach the art of poisoning, and a lady who is anxious to learn it; he is finding fault with the bunglings of us Northerns, and he says, they do it better in the South:—"But go beyond France; go to Aleppo, to Cairo, to Naples, to Rome; and then you shall see, passing in the street, fine, tall, upright men, fresh-coloured and hearty; and you would never dream that those men have been poisoned for three weeks, and will be quite dead in a month." I can read no more than this to you; I turn from it appalled and ask myself, as I regard the mischievous stupidity of these writings,

"Can such things be,
And pass us like a summer cloud,
Without our special wonder?"

It is my duty, however, to tell you that these are impossibilities; they are the fictions of a villain's brain; and, would it were not so! they are the prolific begettors of a like villanous offspring.

Let me turn now to the remedy; let me show that it is within the power of science to unmask every instance of foul dealing, and that it wants but the opportunity to show that

"Murder, though it hath no tongue,
Can speak with most miraculous organ."

Dr. Letheby then proceeded to pass in review the several poisons, and to illustrate the manner in which they might be detected; he pointed out the certainty of his results, and the extreme smallness of the quantity which the chemist was enabled to detect. He dwelt considerably upon the influence of those poisons which were occasioning disease and death in the crowded and filthy districts, and he adverted to the remedy which lay within our reach; he alluded to the necessity which there was to inquire into every case of sudden death; how that inquiry should be conducted, what principles of science and observation should be made to bear upon it; how, in short, we may proceed to establish the truthful saying of our old Bard, that

"Foul deeds will rise,
Though all the world o'erwhelm them, to men's eyes."

STRYCHNINE IN PARALYTIC AFFECTIONS.

By FREDERICK LOWES, Esq., Gosport.

During the month of August I had four cases of apoplexy accompanied by hemiplegia. After subduing the acute symptoms by bleeding, blistering, mercury, &c., I found total loss of power on one side still remaining; I immediately had recourse to strychnine (having previously exhibited it with good effect), and, commencing with 1-12th of a grain, gradually increased it to 1-6th three times a day. In each case I observed marked benefit after the first ten days, and in less than six weeks three of the patients were able to walk without any assistance; the fourth has only the power of standing at present, but is evidently improving.

The above cases tend to prove that strychnine may be advantageously administered in paralytic affections, not only dependent on disease of spinal marrow, but also in those in which disordered function of the brain is the primary cause.

CASE IN WHICH TWO FŒTUSES WERE UNITED AT THE STERNUM, &c.

By R. U. WEST, Esq., Hogsthorpe, Lincolnshire.

I was sent for on Sunday evening, August 15, at about six o'clock, to attend the wife of Robert Garfit, a coach-painter, residing in this village. It was her fifth confinement, and she had always had easy labours. She stated that she had had slight pains the whole of the day. Having ascertained, on examination, that the os uteri was well dilated, and having felt through the membranes one knee presenting, I at once directed my patient to go to bed.

When I came up stairs again, on examining again, I found a set of membranes still presenting, which I ruptured, and then I felt, besides the knee above mentioned, two feet, neither of which belonged to it; and, passing the finger higher up, I made out the foot belonging to the knee, and higher still, the toes of a fourth foot. My conclusion, of course, was that this was a case of twins, in which all the four feet had got down together; and that it was the other set that I myself had ruptured. Taking this view of the nature of the case, I did not anticipate the slightest difficulty; I passed my hand into the uterus till I reached the perineum of one fœtus, and, thus making sure that the two legs I proposed to bring down first belonged to the same body, I proceeded with the delivery of fœtus No. 1. These two legs came down with no more than the usual very gentle traction, till the knees had cleared the vulva—the toes being turned towards the os pubis, when I perceived that a greater amount of traction was gradually becoming necessary. As I could still feel the legs of the other child near the perineum, I considered that this unusual bulk by the side of, or rather behind, the buttocks of the one I was attempting to bring down, was sufficient to account for a little increase of difficulty, particularly as the body of the second fœtus appeared to be in front of the first, and had therefore crossed it. All attempts to push these feet out of the way were unavailing, for the obvious reason, as I thought, that there was no sufficient prominence which could hold them back. I continued accordingly to use more and more force, until I was well able to grasp both thighs with a cloth.

What was the cause of the difficulty that was now beginning to be of serious amount? I was forced to conclude that the fœtuses, by lying across each other, were somehow entangled.

I now passed my left hand (the mother lying on her left side) along the back of the child, to reach, if possible, the cause of entanglement. I had hitherto being using the right. With considerable difficulty I succeeded in reaching the left shoulder, but could not feel anything unusual there. I, however, managed to bring down the arm. After this, by grasping the thighs with both hands, and using very considerable force in traction, I brought the fœtus so low that the cristæ of the iliac bones were all but external to the vulva; but all my efforts to bring the child any further down were fruitless.

I went to the foot of the bed, and introducing the left hand again by way of the perineum, I tried what I could do by grasping the body of the child above its pelvis, while with the other hand I pulled at the legs; but it was useless: and, although my thumb and fingers seemed to pass nearly round the child, I felt nothing unusual. The two fœtuses seemed jammed together.

I began to think it would be necessary to let the other two feet come, in order to bring the cause of entanglement, whatever it might be, more within reach: but I durst not venture upon such a bold plan; for supposing the fœtuses to be separate ones, as was most probable, it would be unjustifiable, I thought, to do a thing so out of course as to allow the bodies of two full-grown children to occupy the pelvis at once. I was altogether so puzzled in mind and exhausted in body (my hands, with nearly three hours' incessant exertion, being so much cramped, that now and then I could hardly grasp anything), that I determined on having the benefit of a con-

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sultation and of a second pair of hands. I felt also that a divided responsibility would be very desirable.

I therefore desisted from any further interference beyond an occasional examination during a pain, while a messenger fetched Mr. Gilby from Alford, a distance of seven miles. We then proceeded as follows:—

While my friend held the legs of the fœtus enveloped in a napkin, drawn down as far as he could, I passed the blunt-hook up along the back and endeavoured to get a hold somewhere. As it would not hold by the shoulder, I forced it through the back close to the spine, and got a firm hold by one of the ribs. I may mention that the funis had been prolapsed more than an hour, and had long ceased to pulsate. By this plan—Mr. Gilby pulling at the legs, while I pulled by the blunt-hook—we, by using very considerable force, brought the body a little lower down, but we could not bring it away. The blunt-hook, having dislocated the spine and broken two or three ribs, began to tear out. It was therefore withdrawn, and I was searching for another place to fix it by, when I felt what, without sufficient consideration, I took to be the second arm attached to the body of the child already half born. Without giving myself time to reflect that it was too thick, down I pulled it. This was a leg. I could not have been deceived—it was certainly attached in some way to the same body of which the two proper legs had for some time been external to the vulva. I examined again and made out this time plainly enough that the two fœtuses were united, and as far as I could reach I could not find out where they separated again. I directed Mr. Gilby's attention to this most extraordinary circumstance, which at once explained the immense difficulty we had experienced. There was nothing else for it now but to let both the bodies come together. They were united at the navel, abdomen to abdomen; and there was but one funis, which passed upwards into the two bellies at the point where the union commenced. Both were females.

We made several attempts with the flat hand passed along the united bodies to feel the neck, or, if there were two heads, the necks, with the division between them; for we could not tell whether there would prove to be but one head and one neck, or two. But until we had drawn both bodies down a little lower, we could not pass our hands high enough up. To make a little more room, while Mr. Gilby held the fœtuses as low down as he could, I passed my right hand up the back of the second fœtus, which, it will be understood, was lying next the os pubis, and with much difficulty succeeded in getting down its left arm, though I fractured the humerus in doing it. This done, we were enabled to draw down the bodies so low, that we could ascertain that there were in reality two necks, and consequently two heads. We now decided on separating the fœtuses. I therefore passed a bistoury, guarded by the forefinger of my left hand, as high up the union as I could do with safety to the mother, and, plunging it in, brought it out again at the united umbilicus. We perceived that a large mass of liver had been cut into. This we tore away along with nearly the whole of the intestines belonging to both children. By so doing we diminished the bulk occupying the pelvis so much that we were enabled to draw the bodies down a good way further. I have said the blunt-hook had divided the spine, and made a considerable hole in the back of the first fœtus; and now that an incision had been made, which opened its abdominal cavity, this child was so nearly in two, that at any rate it was not likely to be of any further use for traction; so it was cut off and laid aside.

It was now our object to bring the bodies low enough to enable us to complete the separation, and afterwards open one of the heads if it should be necessary. I therefore passed the blunt-hook up between the children, and got a firm hold at the top of the junction, and while Mr. Gilby, again grasping the pelvis of the second child, made powerful traction with both hands, I made equally powerful traction with the blunt-hook. After two or three efforts of this kind, a violent expulsive pain coming to our assistance, the two heads, to our great delight, came suddenly away together, and complete delivery was effected.

Now, it has been mentioned that there was only the body of the second child left to pull by. This kind of traction brought the head of that fœtus below the chin of the other, the extent to which they had been divided having enabled the remaining undivided portion to stretch sufficiently to admit of this favourable change of position. Thus the heads, in point of fact, passed through the pelvis one after the other.

There was a good deal of hemorrhage after the birth of the children, and in two or three minutes the one placenta was without any difficulty extracted. The labour was over a little before midnight. The perineum was uninjured, and the mother has recovered without a single bad symptom.

The appearance presented was that of two perfectly formed and well-developed female children united from the umbilicus to the necks. They weighed, without the enormous liver and those portions of the intestines which were torn away, 11½lb. avoirdupois; and estimating the weight of the parts removed, and of the blood that was lost, at a pound and three-quarters, I think we may safely assume that they would have weighed, if entire, 13lb., which is two pounds more than the average weight of twins, according to Burns. The union at the top was formed by a common sternum, or rather by the clavicular extremities of two sterna united end to end, and passing nearly straight across. This double sternum was very short, and would, if removed, have presented the appearance of a nearly square piece of bone with a clavicle at each of the four corners. A kind of raphé could be felt at the point where the bits of sternum joined each other. Below the sternum, on both sides, the true ribs were united by short pieces of cartilage which ran straight across from the ribs of one child to the corresponding ribs of the other. The cartilages of the false ribs turned upwards, and were attached to the under part of the cartilages of the lowest true ribs.

The liver having been cut nearly in two, and torn away along with nearly all the intestines, it was impossible to ascertain the relative position of the parts in that portion of the abdominal cavity in which the sac of the peritoneum was common to both fœtuses. There was but one umbilical chord, and, as that was not at all thicker than the average, I imagined it possible that the children might each supply only one umbilical artery; but, on examining the iliacs in one of them, I found that each iliac sent off its artery in the usual way. The aorta of the other fœtus, having been cut in two in the situation where the blunt-hook had divided the spine, had been torn away along with both kidneys; but there could be no doubt that this child supplied two umbilical arteries as well as the other. The chord must, therefore, have contained four umbilical arteries; but for various reasons, which which will be more apparent when I come to the description of the heart, I think it probable that there was but one umbilical vein. I regret that, when I was searching into these matters the day after the delivery, the whole of the funis, as well as the placenta, had been made away with by the nurse.

Attached to the under part of the raphé of the common sternum, which formed a kind of roof to the two chests, was a membranous bag extending across from side to side, and down to the diaphragm. On cutting into this, I found it was a pericardium containing a curiously-shaped heart, common to both fœtuses. Passing the finger along the top of this heart, I found that its only attachments were at each side, the middle part for the space of about two inches being free. Flat and shaped like a kidney, it seemed to lie evenly between the two chests; but by stretching it downwards it assumed some obliquity, which I found was occasioned by the circumstance that each upper corner of the heart was connected with the right side of each fœtus. Each child had a complete pair of lungs, three lobes on each right side, and two on each left, the mediastina extending backwards from the centre of the common pericardium. Two thymus glands were attached to the under part of the sternum, separated from one another by the pericardium. Each fœtus had two kidneys, and the pelvic viscera in both were perfect and well developed. Although the liver was much torn and nearly cut in two, I was yet enabled to make out distinctly that it was a large one, common to both children. I could not find any gall-bladders, but probably there would be two; at any rate there must have been two ducts, one for each duodenum. The diaphragm was torn to shreds.

The heart itself is shaped like a kidney, and weighs exactly one ounce avoirdupois. On external examination, it is found to possess the following peculiarities:—One enormous large auricular sinus having two openings into it at one corner, supposed to be the openings for a common superior and inferior *vena cava;* with five auricular appendages—one very large under the openings for the cavæ, two at the other corner looking like another large one split in two, and two smaller ones near to each other, hanging down on the other front of the heart between the roots of the two aortæ—all these appendages communicating internally with the large auricular sinus. An aorta at each side of the heart, and a single pulmonary artery having its root near, and passing under, that aorta which is situated nearest the openings for the cavæ. These three vessels all furnished with semilunar valves. No traces of pulmonary veins can be found.

Thus this heart may be said to consist of but one auricle for the admission of blood, and one ventricle for its expulsion by means of three arteries. It is evident, therefore, that though it might do very well to support *fœtal* life, even for both children, it could not have supported extra-uterine life for more than a few minutes.

Now, as there appears to be but one common auricle and one common pulmonary artery, it is not probable that the ascending cava of each fœtus, if they could have been examined, would have been found to have united in a common trunk before passing through the diaphragm? Is it not also probable that there was but one portal system? And one ganglionic system? But speculations of this kind, resting on probabilities, can hardly add to the interest of a case, in which the facts capable of demonstration are quite strange enough in themselves.

Anthropophagism.—This practice was almost universal in Egypt as late as the thirteenth century. During a scarcity the poor began to eat human flesh; this at first caused general horror: which, however, gradually subsided, until the rich began also to make use of the same food, and the fashion spread throughout the country. The most criminal means were used to entrap victims. Among others, physicians were frequently sent for under the pretence of visiting sick persons, and were murdered.

Toulouse.—We hear the melancholy news from this city of the death of M. Amédée de Clausade, physician, member of the General Council of Tarn, general secretary of the Medical Association of Toulouse, &c., which happened on the 22nd Oct. last, at the age of thirty-eight, after a long illness. His brilliant talents and honourable conduct were duly appreciated by his medical brethren. We sincerely sympathize with his numerous friends on the severe loss they have sustained.

A painter at Lubersac, named Michaud, has lost his life by poison lately. His death was occasioned by salts of lead and arsenic, which were part of the composition used by this unfortunate painter. The effects of the poison were so rapid that this unfortunate man had scarcely time to reach his home, where he expired with dreadful groans and convulsions.

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PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF MEDICINE.

Meeting of Nov. 2; M. BEGIN in the Chair.

THE PLAGUE.

The French Government, adopting the views emitted in the report of the academy on the plague, has appointed MM. Prus, Fauvel, and Burguières as resident physicians at Alexandria, Constantinople, and Smyrna. The emoluments of these various situations are fixed at 12,000 f. annually; and the academy was now called upon to decide upon the instructions to be given to these medical agents. Before the instructions were read a communication on the same subject was received from Dr. Aubert Roche, expressing a wish that the "médecins sanitaires" appointed by Government be positively forbidden to practise in their respective residences. The motives for this interdiction were, the hostility which would be created against the institution amongst the professional men already established in the East; the loss of time occasioned by private practice, and the difficulty of following attentively an epidemic of plague breaking out at some distance from their residences, together with the patients under their care for different diseases. The two first paragraphs of the instructions were then read and adopted by the academy.

Section 1. Investigation of the sanitary condition of the foreign country.

1. Immediately upon their arrival into the port confided to their vigilance, each of the physicians shall establish an attentive and incessant inquest into the state of health of the surrounding population. They shall belong *ex officio* to the consular committees of health already existing in the Levant; they shall place themselves in correspondence with the physicians, apothecaries, and other well-informed residents; and frequently visit the hospitals and the poor quarters of the city.

2. They shall keep an official document, and a monthly account of deaths and births.

3. They shall endeavour to ascertain the sanitary conditions of the ships entering the harbour, and of the caravans from the interior.

4. They shall never forget that in Eastern ports the plague may be sporadic or epidemic; and that in the latter case it is occasionally the result of local causes, and sometimes brought from more or less distant lands by the atmosphere, by ships, by pestiferous patients, and perhaps even by goods. They shall constantly apply themselves to inquire into these various circumstances.

Section 2. Visit of the vessels, crew, and passengers homeward bound.

5. Whenever the sanitary physician shall have been requested by the French consul to deliver the certificate, upon which will be prepared the bill of health of a ship, he shall proceed as follows in the investigations necessary to enlighten his judgment on the facts to be made known, at the same time with the sanitary state of the country:—

6. He shall, in the first place, take cognizance of the written declaration of the captain, which the consul will place in his hands. In that declaration shall be stated the nature and quantity of the goods on board; the number of the passengers, together with the indication of the places they come from; the list of the crew; the history of the last passage; the stations of the ship during the three months which preceded her putting into harbour; the date of the last diseases observed on board, their issue, and the absence or actual existence of any cases of illness in the ship. With this certificate the sanitary physician shall go on board.

7. Never losing sight of the circumstances which may favour the production of a centre of infection, he will examine if the places destined for habitation are sufficiently spacious and ventilated; he shall inquire into the number of persons on board, the degree of humidity of the atmosphere of the ship, and the means of ventilation.

8. After the ship, he shall examine the crew and passengers; he shall remember that the plague, even in its incipient stage, generally betrays its presence by some exterior sign. His attention shall successively be carried upon the characters of the pulse, the state of the tongue, the appearance of the eyes, the more or less firm step of the person examined. The palpation of the axillary and inguinal regions shall take place only when some symptoms will form legitimate grounds of suspicion, and shall always be performed with due delicacy.

9. In ordinary times, when no epidemic shall be present, the above-prescribed operations will suffice. In case of an epidemic, special precautions may become necessary, when the physician shall have sojourned some time in the room of a pestiferous patient, or shall have been personally compromised in any other manner. The visit of the ship, crew, and passengers shall be made upon the mail-packets and all ships of H.F.M.'s service, by the surgeons of the ship; and for all commercial vessels, not furnished with a medical officer, by a physician of the city named by the sanitary physician, and appointed by the French consul.

CURIOUS FACT OF NATURAL HISTORY.—M. Duméril, at a late meeting of the institute, reported upon a memoir of M. Boursier, relative to the singular fact of silkworms' eggs, which were not fecundated, and still were fertile. M. Duméril observed that this was not an isolated, or even an uncommon, circumstance; he had remarked that the females of insects of very different kinds, but particularly amongst the nocturnal lepidopteræ, produced occasionally fertile eggs soon after breaking through their chrysalis. The insects of this species found in summer upon plants are all females and fecundated; it is only in autumn that the males appear. They couple, and the females bring forth eggs which produce in spring female individuals, who do not require to be fecundated to be fruitful; this may continue for several generations, even as far as ten successive births of female individuals, without fecundation.

FACULTY OF MEDICINE.

OPENING MEETING—THE ADDRESS.

The recess of the faculty was closed on the 3rd of November, and at one o'clock the opening address was delivered by the professor of physiology, M. Bérard. The subject chosen by the orator was the panegyric of Haller, and an appreciation of the illustrious physiologist's researches. We translate the following passages:—

"... What! a panegyric of Haller in the year 1847! Have not all the learned bodies to which he belonged paid one century ago the tribute due to his memory? Can you hope to interest us more to the history of his youth than his countryman Tcharner? Have you the pretension of expounding his doctrines after Vicq d'Azyr, or his politics after Condorcet? Let me say a few words of the panegyrists of Haller. He was one of those few individuals to whom no branch of human knowledge is foreign. *Philologists* may well be surprised to find him composing for his own use, at the age of nine years, a Hebrew grammar and a Chaldean dictionary, or translating into Greek, in play, a theme which he had to write in Latin. *Poets* will quote with enthusiasm the noble verses in which he celebrated the sublimity of Alpine scenery, or the highest aspirations of the heart. More than one naturalist has founded his reputation on less important botanical researches than those of Haller. *Commentators* look upon his exposition of Boerhaave's doctrines as a model; and the learned can hardly conceive how he found time for other labours after the publication of a work which required the perusal of upwards of six thousand volumes. *Political writers* have not disdained to examine his observations on the best form of government. Carrying into more abstruse matters his thirst of knowledge, Haller writes upon *theology*; with Bernouilli, his master, he sounds the depths of integral and differential calculation; he publishes a dissertation on *numismatology*; and all these various claims upon glory are in some degree obscured by the immense *éclat* of his anatomical and physiological labours! Haller's panegyrists have endeavoured to represent him under all his aspects, to describe his various talents; and for that very reason they have, one and all, been doomed to sketch but an imperfect portraiture, the eulogium of such a man being a theme far beyond the circumscribed proportions of academical oratory. I will not, doubtless, do better than they have done, but I will do otherwise. In Haller I will describe only the physiologist, and in that still considerable field of study I will not follow the same path as my predecessors: for, in 1847, we may be justified in modifying some of the judgments passed upon Haller's doctrines by the physiologists of the eighteenth century.

"The illustrious Chancellor Bacon who pointed out the method to which modern sciences are indebted for their progress, expressed a wish that, from time to time, a sort of inventory of positively acquired knowledge be drawn up for each branch of human knowledge, so as to serve as a basis to future labour and further progress. The middle of the eighteenth century was a period highly favourable to the realization of this desire for physiology.

"Since one hundred years, physiology affected the perhaps exaggerated pretensions of being the only basis of the etiology and treatment of diseases. Medical practice had successively obeyed the sway of iatro-chemists, iatro-mechanicians, and of animists. Their reign was over, it is true; but each had brought forward, in support of his doctrines, facts which called for a more satisfactory interpretation, and materials to be put to a proper use. All had left some traces of their passage, and physiology presented a singular mixture of opinions borrowed from the bad chemistry of Sylvius or Willis; from mechanics, the more exact and, therefore, more seducing applications of which had not been less abused; from Stahl's doctrines, which had the merit of pointing out at last the difference between living bodies and inorganic matter, but which, refusing the assistance of physical sciences, had proscribed their use instead of merely forbidding abuse, and disdained too much the matter, to understand properly its functions. The romance of life had been composed; it was time to write its history, a task facilitated by the progress of anatomy. . . . The time was, therefore, come when Bacon's wish could be realised. At great epochs great men are seldom wanting; for the illustration of this period Haller was born. Although he had poured out upon various subjects that intellectual activity with which his mind overflowed, he had always shown a marked preference for anatomical studies and the science of life. In Holland, at the age of eighteen, he had followed the lectures of the celebrated Albinus. He had seen with no less admiration that other illustrious anatomist, Ruysch, that *bonus senex*, as he often calls him, pursuing at the age of ninety, with juvenile ardour, those anatomical practices which had rendered his name popular in Europe. In France, Winslow—in England, Douglass—had been his masters. Professor of anatomy at Göttingen, he dissected no less than 360 human subjects in the space of seventeen years, noting each day the results of his observations, and comparing them with the remarks of his contemporaries and predecessors; his desire of serving the cause of science made him overcome his natural repugnancy to torture animals, and he multiplied his vivisections. . . . He had neglected no occasion of improving his knowledge of comparative anatomy. . . . His reading was immense, and his memory wonderful. Such was the man who undertook to write the history of physiology from its origin up to the middle of the eighteenth century. He resigned his chair, and, resisting the handsome offers of the Kings of England, of Prussia, and of the Czar, he retired to Berne, at the age of forty-five, there to

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divide his time between the reduction of his "Elementa Physiologiæ," new experiments on the development of birds, and the public affairs of his country. Does it not seem to you, gentlemen, that the soul is gently reposed by the recital of such facts? Do they not console the mind grieved by the aspect of ambitious rivalry, and of that uncurbed avidity which values the professor's gown only as a more remarkable advertisement destined to increase the activity of the pecuniary offerings of the public? I will now speak of the labours of Haller, and a little of the physiology of his age; with that double view, I will run rapidly through the circle of the functions.

"To take from, and to reject, incessantly materials into the external world is one of the most important conditions of the life of an organized being. What is the component matter of that animated whirlpool in which, at every instant, are admitted fresh atoms, to be carried away soon after, having for a moment participated in its life? This important problem could not be solved in the days of Haller. . . . Thanks to modern chemistry—a science which is become almost a branch of physiology—those elementary bodies fit to form living matter have been pointed out. To what would, even lately, have been considered as a bright fiction, chemistry has given the character of a rigorously-demonstrated fact. . . . Seldom does any discovery become domesticated in science without some preparatory ideas being discernible in the writings which have preceded it. If Haller did not and could not know the elementary composition of organic matter, he perceived some degree of analogy between certain vegetable substances and the flesh of animals. He was not ignorant of the fact that Beccari had mentioned the existence in flowers of a substance not very remotely connected with animal matter, and susceptible of putrefaction. That fact, which would, perhaps, have escaped another man, is fully understood by Haller in its physiological bearings; and he gives the name of gluten to muscular flesh, to modern fibrin, which chemists now-a-days consider as identical with gluten in its elementary composition and chemical properties. . . . A Belgian, Van Bochante, read, in 1781, to the Academy of Sciences of Brussels, a series of papers, in which he endeavoured to prove that animal matter is composed in 'the vegetable economy' (such are his words), and that it passes ready formed into the body of animals for the purposes of nutrition; he does not except fatty matter, the origin of which in animals has caused amongst the most illustrious chemists and agriculturists of our own age polemical debates which are not yet drawing to a close. Let us applaud these researches without exaggerating their results. When it shall have been demonstrated that animals incapable of forming organic matter receive it ready-made from the vegetable kingdom, the chemical problem will be solved; but the problem of organism will remain unravelled. We will not yet know how fibrin, at rest in the plant, becomes, when assimilated to the animal, obedient to his will; how albumen, dissolved in the fluids of the plant, and in the animal arranged in longitudinal striæ, transmits impressions and orders with the speed of lightning; nor how it feels light in the retina, sonorous undulations in the auditory pulp, and assists in the brain to the production of thought.

"Haller's first step in medical literature was the refutation of an error which was rapidly becoming popular. During the preceding century, no researches had produced so lively a sensation as those connected with the discovery of an excretory duct. Steno and Wharton had enjoyed the glory of inscribing their names upon the salivary ducts, and, in their enthusiasm, the excellent countrymen of Maurice Hoffman celebrated in a periodic banquet the discovery of the pancreatic duct; thus entering a convivial protest, glass in hand, against the pretensions of the Bavarians, who claimed for Wirsung the signal honour of the discovery. Similar triumphs had, doubtless, disturbed the rest of more than one anatomist, for every day some new excretory duct made its appearance. The spleen, the thyroid gland, had theirs; nor had the thymus been forgotten. Coschwitz had said that saliva was poured upon the basis of the tongue by an excretory duct, the existence of which was generally admitted. Young Haller carefully injected the vessels of the tongue, and showed that a vein had been mistaken by Coschwitz for an excretory duct. Modern chemists will doubtless smile in perusing the pages in which Haller describes the phenomena of digestion; but the physiologist will again and again read them carefully. The constriction of the glottis during deglutition—a discovery which began the scientific fortune of a modern academician—is positively mentioned and appreciated by Haller, as well as the motion of the larynx, which occasions the falling of the epiglottis. No author ever described so accurately the peristaltic motion of the intestinal tube. The physicians, who some years since brought before the Academy of Medicine a new method of treatment of typhoid fever, will, perhaps, be somewhat surprised at hearing that, with purgatives, Haller was in the habit of arresting putrid fever in its incipient stage. . . On the history of the chemical elaboration of food in the stomach, Haller left some points to the investigation of his successors. Spallanzani's artificial digestions had not yet been instituted, nor had he shown to his astonished contemporaries, gastric juice dissolving food, out of the body of animals. Modern chemistry only could show that alimentary matter is transformed at the same time that it is dissolved; that the diastasis of saliva, or perhaps the mucous membrane of the mouth, converts starch into dextrine and glucosis; and that in the stomach, fibrin, albumen, gluten, caseum, are by another agent changed into an albuminoid matter, in which albumen, fibrin, and caseum will be again found for the purposes of nutrition. And yet, in some points, Haller's doctrines are not far removed from those of his successors; he admitted the dissolution of the nutriment by the gastric juice; his chapter on the acidification of the bolus in the stomach seems to have been composed only yesterday; but, in his opinion, acidification is an accident of a vicious digestion. Haller believed the acidity to arise from the food, not from the gastric secretions, which he deemed alkaline. On the usages of bile nothing has been written of a more complete nature than Haller's chapter. The combination of fatty matter with water and bile forms an *emulsion*, which is absorbed under the name of *chyle*. To those who considered bile an excrement, he very judiciously observed that, if it were an excrement, it would not be poured into the duodenum, where it would taint the chyme. . . . . At the period of the discovery of the lymphatics, the immortal Harvey refused to believe in this new system of vessels. . . . . His efforts were inefficient, and the lymphatics of the intestine were placed among the agents of the absorption of chyle. So far the subject was in a state of progress; but the learned men of the age did not stop in time. Hunter and his pupils refused to the veins any absorbing power, attributing it exclusively to the lymphatic system. . . . Nothing more was wanting but to invent organized orifices endowed with an elective sensibility, which permitted them to take or to reject at will the substances which came into contact with these mouths. The propagation of this error we are obliged to refer to Bichat and his school, and it may still be traced in the language of modern physicians, who speak of 'absorbing orifices,' and do not make any difficulty to admit the absorption of certain substances suspended in liquids—globules of pus, for instance, or analogous particles. This retrograde period had already begun when Haller wrote his 'Physiology,' Hunter having published his first researches. Notwithstanding the authority of that illustrious name, Haller did not deviate from the right path. He showed that fluids penetrate through the parietes of the veins, and accumulated many proofs in support of his view. . . . .

"It will hardly be recollected nowadays that Galen believed in the existence of a mass of air in the pleuræ, which pressed upon the lungs during expiration. But, in Haller's time, many physiologists still admitted its presence, and Hamberger amongst others; Haller demonstrated experimentally the fallacy of the opinion. But this was only one side of the question. He made the action of the two sets of intercostal muscles, and the play of the ribs, the object of a new series of experiments, and of an admirable analysis of the respiratory movements. Haller saw that, when both pleuræ are opened, the lungs collapse and the animal is suffocated; but he carefully avoided the gross mistake of so many ancient surgeons—and, why should I fear to say it, of some honourable physicians who took a part, some years since, in a debate on empyema in the Academy of Medicine? He takes care never to say that the lung collapses on account of the pressure of the atmosphere; he knew full well that this phenomenon is due to the retractility of the viscus. . . Although Haller carried to a high degree of perfection the description of the mechanical phenomena of respiration, the state of chemistry in his day did not permit him to penetrate the essence of that function. It is necessary to be aware of the strange ideas adopted at the time on the seat and conditions of sensibility, in order to appreciate fully the services which Haller rendered to science on these points. The tendons were considered by contemporary surgeons as exquisitely sensitive, and the seat of that sensibility was placed in the cerebral membranes. In the nerves, the neurilemma alone was sensitive, not the medullary substance; and Mariotte had established as a fact that the choroid membrane of the eye recived the impression of light. . . What was not the universal surprise when Haller asserted that tendons, ligaments, articular capsules, bones, cartilages, the dura mater, peritoneum, pleuræ, pericardium, veins, and arteries were insensible! that the knife might be plunged into parenchymatous organs, and that pieces might even be removed from them, without any appearance of pain! . . . The experiments were everywhere repeated, and Nature made in all places the same answer. From all directions Haller received letters confirming his discovery. From Italy particularly, where the vivisections were attended even by clergymen, amongst whom we may name Father V. Patrini, the Rev. Urbano Tossati, Abbati Felice Fontana; all three soon to be eclipsed by the illustrious Abbé Spallanzani. . . . In one solitary instance did the great man, absorbed in the consequences of preconceived views, refuse to admit the evidence of his senses: although he had seen that the brain might be wounded without producing pain, still, preoccupied with the idea that the properties of nervous matter must be everywhere the same, he concluded that the cerebral lobes were sensitive. . . . . At the same time that Haller published the results of his experiments on sensibility, he brought forward a discovery of even greater importance—one closely connected with the philosophy of our science. In the body of man and animals, some parts enjoy the property of contracting under the influence of a stimulus. If this notion has now become familiar to you all, gentlemen, it is to Haller you are indebted for it; his masters had taught him nothing of the sort. Can you imagine the chaos of science, at a time when Baglivi considered the dura mater capable of contraction, and of throwing into motion the animal spirits by its movements! when Pacchioni supposed a sort of antagonism between the false cerebri and the false cerebelli, producing successively the compression of the corresponding parts of the brain! Haller appeared, and, discovering the laws of irritability, showed that property belonged to the muscular fibre, and for ever banished from science those absurd explanations founded upon the contractility of fibrous membranes, the shortening of tendons, &c. . . Haller demonstrated that the stimulus of the external muscular system was the change

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produced in the nervous system by the influence of will; and for the hollow muscles, like the heart and digestive tube, the stimulus was found by him to be the fluid contained in their cavities. . . . . This influence of the stimulus Haller was in the habit of demonstrating by a very striking experiment, which consisted, in an agonising animal, to change the succession of phenomena in the heart in such a manner that its left cavities should last cease to live—a result which he readily obtained by retaining the blood in the left cavities.

"What place should be assigned to Haller amongst the men who have endeavoured to systemize our science? Evidently amongst those physiologists who have prepared modern vitalism. . . . On one essential point, the connection of irritability with nervous power, Haller's doctrines have been revised by modern authors. In the voluntary muscles, does it persist after the section of their nerves, and have the peristaltic motions and rhythmic contractions their source in the intermittence of stimulation, or in the nervous centres? These questions have been re-examined, and have not been answered precisely in the sense of the Hallerian doctrine.

"Finally, gentlemen, the mysterious function of generation fixed Haller's attention: his studies on the impregnated ovum, and the development of the chicken, almost threw into the shade Malpighi's researches; and the conclusions which he drew from his observations fixed for a time the theories of generation. Haller adopted openly the theory of evolution. The embryo is created: impregnation causes the development of existing parts; organs grow, they are not generated. This theory agreed well with that of irritability. The action of the spermatic fluid on the pre-existing embryo was to give up to the immoveable heart; the moment that mainspring of the system was thrown into action, the arteries and veins extend, and, by their pressure upon neighbouring parts, cause them to condense and become more apparent. The most illustrious men adopted Haller's view: Spallanzani believed in it; and Bonnet wrote to Spallanzani to try by experiment if the spermatic fluid might not be replaced by the electric spark. A philosopher's dream! The days of Prometheus were passed, and that fire which some short time after Franklin stole from the heavens, was incapable of animating that germ untouched by the male's spermatic matter. You may, perhaps, inquire what had given so much consistency to the theory of evolution now replaced by that of epigenesis? It was, gentlemen, an anatomical peculiarity, badly observed. The yolk of the chicken is contained in a sac which is continuous with the bird's intestine. The vessels of the sac emanate from the vessels of the chicken. The membrane of the yolk pre-exists, said Haller, *ergo*, the chicken, whose intestine is continuous with that membrane, also pre-exists. The original fact, gentlemen, was badly observed. The sac which contains the yolk is, like the chicken itself, a new formation, organized at the internal face of the primitive membrane. This had been seen and asserted by Haller's antagonist, Wolf, and has been since, with the assistance of our more perfect instruments, recognised most undoubtedly to be the truth. What chiefly attracts in Haller's erudition is not only its extent, but the choice, the intelligent use of the materials amassed by his predecessors, and by his contemporaries: it is, above all, the honest use he makes of these materials. . . His taste for erudition did not make him neglect the book of Nature: he constantly reverts to it: and he has given the most judicious precepts to guide the student in vivisections. His style has the austere form and the lucidity most proper to scientific works, but sometimes shows the touch and the mind of the poet. We may quote the following instances of a rare felicity of expression:—The fœtus, bathing in the amniotic fluid, moves its lips and mouth, as if seeking for some unknown good—food or air:—'Captant quasi bonum ignotum, cibus ne fuerit an aer.' Painting the effects of continence, he compares the spermatic fluid to a virus, the resorption of which increases the power of body and mind:—'Vitale virus maximè confert ad robur, corporis et animæ.' In what magnificent terms does he speak of the tenuity of light!—'Tanta nempè est tenuitas, ut per acûs ocellum, possis immensum illud dei incogniti templum dimidium auspicere.'"

M. Bérard closed his speech with a short peroration, in which he adverted to the advantages opened to the students in the new museum, and resumed his seat in the midst of deafening and prolonged applause.

The following prizes were then awarded:—

First Prize of the Faculty.—Divided between M. Frédault, of Paris, and M. Ozanam, of Lyons.

Second Prize.—M. Coffin, of Dijon.

Honourable Mention.—Messrs. Blondeau and Boulland.

The Corvisart Prize.—M. Leudet, of Rouen.

Montyon Prize.—Divided between Dr. Hillairet, of Angoulême, and Dr. Colin, of Poiley.

Prizes of Midwifery (sages femmes).—First prize, Miss Leveillon; second prize, Miss Nicaise.

ETHERAL INHALATION—DEATH—(From the "Journal des Connaiss. M. Chir.").—On July 10, at the Hôtel Dieu of the city of Auxerre, a man, aged fifty-five, of a robust constitution, was placed under the influence of ether, for the purpose of undergoing an operation for the removal of a cancerous tumour. After an inhalation of two or three minutes, considerable agitation was observed in the face and limbs; during five minutes more, the inhalation was continued, and complete insensibility was established. The first incision was performed; but the dark colour of the countenance having attracted the operator's attention; the pulse was felt, and the patient almost immediately expired. On dissection, the brain, lungs, and heart, the liver, kidneys, and spleen, exhaled a strong smell of ether; the blood was dark and viscid, and the lungs were in their posterior parts the seat of hypostatic congestion.

D. M'CARTHY, D.M.P.

Abscess of the Bladder.—Dr. Lawrence Turnbull, of Philadelphia, narrates the case of a gentleman, seventy-seven years of age, to whom he was summond in consequence of a supposition that the patient was suffering from gravel. He had been unable for several hours to evacuate his bladder, and in his endeavours to do so could only pass a few drops with great pain. He had suffered previously from similar attacks, and was relieved by the introduction of the catheter. He was now placed in a warm bath, an enema of starch and laudanum given, and a silver catheter introduced, being forced through the projecting part of the prostate gland, which was considerably enlarged. The urine drawn off was considerable, the first portions being mixed with blood, and having a strong ammoniacal odour. It was necessary again to introduce the catheter early the next morning, and an elastic gum catheter was left in the bladder for three days. The urine now became charged with a tenacious mucus of an alkaline character, so thick as to be with difficulty poured from one vessel to another. He was then ordered to drink freely of an infusion of pareira brava, also a suppository of opium and hemlock was given. The alkaline mucus soon ceased to flow, but it was necessary to introduce the catheter three times a day; a few ounces of urine in the bladder being sufficient to cause the most intense pain. For a time his pulse continued steady, and his appetite good: afterwards, however, it became small and thready, the tongue becoming brown and cracked; the urine diminishing in quantity; restlessness and vomiting supervened, and one month after his attack he died. Upon examining the body there were found a hernial tumour and a hydrocele, from which he had suffered several years. The intestines were found glued together with freshly-effused lymph, and their coats injected, forming a true case of peritonitis. Upon raising the intestines a large portion of omentum was found down in the hernial sac, being attached to the walls of the abdomen by the pressure of a truss. Upon raising the bladder there was a quantity of pus found within the pelvic cavity of a dark, grumous character, occasioned by the opening of an abscess situated upon the summit of the bladder. There were also three smaller abscesses on the lateral surface of the organ communicating with its cavity, and a much larger one on the anterior portion of the prostate gland. There was also an opening like that made by a catheter through the third lobe of the prostate, which projected into the cavity like a nipple. Posteriorly to this, in a pouch, there was a large portion of lymph, partly organized and imbedded in which was a mass of white particles of phosphate of lime, forming a kind of mortar. The whole length of the bladder was about five inches and a half, and its width four and a half; the cavity was capable of containing from three to four ounces of urine. Its walls were half an inch in thickness, and the prostate gland, on its lateral side, was two inches and a half long, and two and a quarter in breadth; being about eight times the size of the gland when healthy. The kidney of the left side was very vascular, and the papillæ were ossified upon their margins. There was also a serous cyst upon its surface, not connected with the internal portion of the kidney. The right was vascular, but not ossified, and the ureters very much inflamed in their whole course. The splenic artery was ossified.

Surgical Treatment of Œdema of the Glottis.—Dr. Gordon Beck stated to the New York Medical and Surgical Society that he had long thought that in cases of œdema of the glottis, when suffocation seemed imminent, the patient might be relieved by incising the edges of the glottis and epiglottis. An opportunity occurred in which he had recourse to the practice with decided benefit. The patient, suffering under inflammation of the fauces, became affected with dyspnœa, attended with paroxysms of impending suffocation. On passing the finger into the fauces, the epiglottis could be felt enormously swollen and tense. The swelling of the glottis could likewise be distinguished. In the operation a pair of curved, sharp-pointed scissors was employed, and afterwards a curved, sharp-pointed bistoury guarded to within an inch of the point. The patient expectorated two or three spoonfuls of blood mixed with the secretions of the fauces, and expressed himself decidedly relieved. Besides the operation, the patient was bled, leeched, inhaled aqueous vapour, &c. He recovered.

Animal Ligature.—Dr. W. T. Wragg, in a paper on the use of animal ligatures, quoted in the *American Journal of the Medical Sciences*, states that he has been in the habit of using these ligatures upwards of ten years, and for a long time he has used none but these. In the course of this period he has tied the arteries of the fingers, hand, forearm, arm, leg, and thigh, and he has never seen any symptom result from which he could infer that the knot had not been removed by absorption. From the facts he has observed he deduces the following inferences:—1. That the deer-sinew ligature, if properly applied, will effectually arrest hemorrhage from vessels even of a large size. 2. That they produce less inflammation of living tissues with which they are placed in contact during the time they remain as foreign bodies in these tissues, than other substances. 3. That they are susceptible of being absorbed and carried away by the action of the living parts in the midst of which they are placed. The substance used is the deer sinew dried, stripped down and twisted so as to form a small round thread of smooth and regular surface, inelastic and strong enough to withstand any degree of force that can be applied to it by the fingers in drawing the knot. The manner of preparing these threads is as follows:—First, the sinew should be well prepared, which is done by dissecting the hamstring tendon carefully out so as to obtain the greatest length of the fibre. The long tendons running down the leg will answer also, but they are not so easily stripped, and, therefore, do not give threads of

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as regular size. These tendons are prepared by long and careful drying, and should never be used till all moisture has disappeared from them. To strip them down to the proper size, the process should commence at the middle part of the tendon and proceed towards the ends; by this means the entire length of the fibre is obtained. If any difficulty is experienced in tearing the fibres apart, the tendons should be beaten with a hammer, but not so violently as to destroy them. When reduced to a very small size, the fibres must be moistened in water and twisted, either alone or two more together, so as to prepare a thread of the desired size. This is then held in the fingers a few moments and stretched while drying, so as to retain the twist, which will remain permanent after the sinew becomes dry. Ligatures thus prepared should be kept on hand, for they become more and more adapted to use by time. They should not be very large. The size must vary, in some degree, according to the artery on which it is to be placed.

Congenital Obstacle to Catheterism.—Professor Theile, of Berne, mentions the case of a man who hanged himself, into whose urethra a probe was introduced, in order to ascertain if ejaculation of the spermatic fluid had accompanied death. The probe, however, could not be made to enter more than an inch; neither could a tube be made to enter when an attempt was made to inflate the bladder. On investigation, a fissure was found in the urethra 6‴ in length, the greater portion of which lay on the lower surface of the glans, and reached to its posterior border, thus presenting the lowest degree of hypospadias, and a deficiency of the prepuce corresponded to the fissure. When the urethra was cut from the glans along its lower wall, nothing unusual was observed, either in texture or diameter; but about 5‴ lines behind the summit of the glans there was seen a septum about ½‴ thick, running 8 or 9‴ along the urethra, so as to form a separate canal above the normal passage. This upper tube at its posterior extremity was about 2‴ in diameter, becoming gradually narrower till it ended in a blind sack. It was lined with mucous membrane throughout. The interior border of the membranous septum being inclined downwards, the upper canal viewed from before had an infundibuliform aspect, while the diameter of the normal canal was narrowed by it so as to be scarcely greater than 1‴; thus the probe, as well as the tube for the inflation of the bladder, on being introduced into the urethra, passed into the funnel-shaped opening of the upper canal; and, if a catheter had been tried during life, it would have run into the same abnormal passage.

Ether Enema in Operations.—Dr. Cumming, of Madras, had a boy under his care who, twelve days previously, had fallen from a tree; the right humerus, near the shoulder-joint, was fractured, the forearm completely mortified, and the gangrene had extended considerably beyond the elbow-joint; but no line of demarcation had formed. It was determined to amputate the limb, and to try the effect of the vapour of ether in the form of enema. The instrument consisted of a large bladder, with an enema-pipe attached, an ounce of ether having been poured into it. The patient being unable to sit up, the lower part of his body was supported, the instrument then introduced, and a basinful of boiling water placed under the bladder, so that it was partly immersed in the water, some of which was also repeadedly thrown over it; but, though the latter soon expanded, after seven or eight minutes only a little drowsiness was produced. Shortly after the instrument was removed, and the ether remaining taken out. An ounce of fresh ether was then introduced, and the pipe, by tying a cloth well round its base, was made outwardly, at its attachment, as air-tight as possible. The second attempt succeeded in two minutes; almost immediately after which, perfect insensibility being discovered to exist, the instrument was withdrawn. The arm, about two inches below the level of the axilla, was removed by the double-flap operation, which occupied but two or three minutes; the vessels were speedily secured, and all the stitches were completed but two, when, while inserting the needle, the patient for the first time awoke, uttering a faint ejaculation. The concluding stitch made him ejaculate slightly again, but it was not till he had been carried to the ward that he knew the operation had been performed. Very little blood was lost during the operation.

Microscopic Examination of a Cancerous Tumour of the Breast.—The patient from whom the scirrhous growth was taken was a female, thirty-seven years of age, under the care of Mr. Syme, in the Edinburgh Royal Infirmary. Last December she observed a swelling of the left mamma, attended with sharp shooting pain, which was thought to be an abscess, and treated by fomentations, &c. Under this treatment it decreased in size, leaving in its place a small tumour the size of a horse-bean, in which she felt a sharp, gnawing pain. It increased rapidly, paroxysms of pain coming on at intervals, attended by swelling of the arm and axillary glands of the same side. On admission into the hospital, the tumour was the size of a small orange, and separable from the true substance of the gland. It was removed by a single incision, and the patient was dismissed with the wound completely healed. The microscopical examination was made by Dr. J. H. Bennett. A thin section was removed from the centre of the tumour by means of Valentine's knife, and examined with a power of 250 diameters linear. It consisted of a mesh-work of fibrous tissue, forming waved bands, arranged here and there in circles varying in size. Some of these were very large (one-fifth of a millimètre in diameter), enclosing other circles, each of which were surrounded by several filaments of the fibrous tissue. Some of these circles contained numerous nucleated corpuscles crowded together, mixed with granules; others contained only a few, or nothing but granules. Here and there were to be seen several compound granular corpuscles. On adding acetic acid to the whole structure it became more transparent. Many of the fibrous filaments became invisible, and such as remained were studded here and there with elongated nuclei. The walls of the corpuscles were partly dissolved, and rendered very transparent; whilst their nuclei were unaffected. The cream-like fluid, which could be squeezed from the surface of the tumour, contained—1, nucleated cells; 2, compound granular corpuscles; 3, numerous granules. The nucleated cells were of a round or oval form, varying in size from the 1-100th to the 1-50th or even 1-40th of a millimètre in diameter. Some contained one nucleus, others two, of an oval form, varying in the longest diameter from 1-100th to 1-75th of a millimètre. Some of these nuclei contained one nucleolus, and others two. On the addition of acetic acid, the cell-wall was rendered more transparent; the nuclei were unaffected, and appeared in consequence very distinct.

Influence of the Periods of the Day on Mortality.—Dr. J. L. Casper, of the University of Berlin, has examined the question respecting the relative rates of mortality at different hours of the day. His data consists of 5595 deaths officially recorded in Berlin, by those who are appointed by Government to verify death, and report the cases. To make the results simple and intelligible, the number of deaths is taken at 100, and the day is divided into four sexhoral periods. It is obvious, if the rate of mortality was the same throughout the day, there would be 25 deaths in each period; but the following are the results:—

From	12	to 6 A.M.....	25
,,	,,	12 ,, ...	29
,,	1	6 P.M.....	25
,,	,,	12 ,, ...	21

From this it will be perceived that the maximum amount of mortality occurs in the six hours before noon, while the minimum rate occurs in the six hours after noon. The other two periods of the day appear to be indifferent. It is rather singular as a result to find that the morning hours are those in which the greatest number of deaths occur; but it must not be forgotten that the period will be in many respects modified by the nature of the disease causing death. The number of deaths from acute diseases is smaller in the morning and larger in the afternoon hours, thus departing from the average results of the total deaths.

Microscopic Examination of Nasal Polypi.—Dr. Gumsburg, in his "Pathological Histology," gives the following:—"The adherent portion or root of the polypus consists of fusiform cells with elongated nuclei, resembling the ordinary primitive cells of muscular fibre; between these are deposited nuclei, in some of which a central nucleolus may be detected. It is from these nuclei that the fibrous cells are formed, and they are in structure identical with the nuclei visible in these cells. In making a section of a nasal polypus we usually find its structural elements arranged in the following order:—Externally there is a layer of polygonal cells of pavement epithelium, forming a protective investment. Below the epithelium is a layer of the round nuclei of the above-mentioned fusiform cells, and in most cases below there is a thick layer of nuclei and cells—the organized product on which depend its shape and firmness. The red vascular structure in the body, at the extremity of a polypus, consists of a loose network of nucleated fibres, and of capillaries filled with blood, and having a diameter not exceeding ·005 of a millimètre."

The Opposite Polarity of the Tissues.—Dr. Baumgaertner, of Freiburg, quoted in "The British and Foreign Medical Review," has the following observations in reference to the fact, that if a piece of muscle be separated from the body, together with a portion of its nerve, on repeated stimulation, the irritability is lost, and is only recovered after a period of rest; that the power must have been derived from the muscular tissue itself; and that, in fact, there is a sort of polar or ganglionic action between the two forms of tissue. As an analogous process in ganglionic action, he points out the increase in magnetic power of a magnet induced by an increase in the weight of the iron. It is, therefore, concluded that the terminations of nerves are not simply recipients and conductors, but are also active agents in innervation, and have a polar relation to the tissues in which they terminate. Another curious theory in connection with nutrition, brought forward by Baumgaertner, is the opposite polarity of apparatuses, as of vision and the optic nervous centres. The reaction of cosmic agents within the living body also presents a subject of curious inquiry, especially with reference to sleep. This, he says, is dependent upon the law of alternate activity and repose, and not upon cosmic agents only. There is less stimulation during the night, and consequently the tissues rest to recruit their power or become charged again. During the state of activity in the day there is greater stimulation, and the accumulated power is discharged.

Turning by the Head.—Dr. Heller considers that, while turning by the head is an old operation, it is at present far too seldom performed, as it is applicable in many cases where turning by the feet is practised to the destruction of the child. Turning by the feet is, undoubtedly, in a great number of cross positions, the only method which can be chosen, as in very rapid labours, narrowing of the pelvis, when the liquor amnii has been long discharged, complete absence of pain, &c. But in many cases of crossed position, with prolapsus of the cord, or of an arm, or where the head is not found in the neighbourhood of the os uteri, the case has been brought to a safe conclusion turning by the head, with less danger to the ehild. Three cases are described. In one of these was complete torpidity, and loss of power in the uterus. The child lay completely across, and was already putrid. The constriction of the os uteri rendered spontaneous delivery impossible, and did not allow turning by the feet, from the probability of producing rupture of the uterus.

Abdominal Pregnancy, Suppuration, and Extraction of Fœtus through the Abdominal Walls.—

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Dr. Duckert relates the case of a woman who, during her fourth pregnancy, was attacked by an ox, who thrust his horns under her clothes, lifted her up, and then let her fall on the ground. When seen by the physician, she was pale, cold, and almost pulseless. The abdomen was very painful, swollen on the right side, and the fœtus could be very distinctly felt through the abdominal walls. The movements of the child could not be felt after the accident. A considerable quantity of blood flowed from the vagina. Internal examination found the os uteri closed, and the vagina pushed to the right side. The fœtus could not be felt. The woman, during her pregnancy, had frequently suffered from abdominal pain, which she had never before experienced. The following day the pain was increased, and was more limited to a particular spot. Leeches were applied to it, and doses of calomel prescribed. On the third day the patient was much the same, and warm fomentations were ordered. An abdominal pregnancy was now diagnosed. The hemorrhage from the vagina became more and more watery, and continued three weeks; and the abdominal pain continued to be more or less strong. An abscess, after about three weeks from the receipt of the injury, was discovered in the abdominal walls below the umbilicus. This was opened, and the incision enlarged, on perceiving that the fœtus presented at the opening. It was extracted with the putrid placenta. The cord still adhered to the abdominal walls, but was afterwards separated by ulceration; very little hemorrhage occurred. The wound was brought together by sutures. The discharge at first was considerable, ichorous, and very fœtid, but was soon succeeded by that of good pus. In six weeks the wound was nearly closed, so that the patient could leave her bed and walk without difficulty.

Sulphuric Ether in Intermittent Fevers.— Dr. Challeton, of Gannat, has had great success in the treatment of intermittent fevers by administering half a coffee spoon of sulphuric ether in a glass of sugared water, either at the moment of the first shiver, or at intervals of every four hours, on the day preceding that of the attack. The efficacy of the treatment is confirmed by practitioners in the neighbourhood also.

REVIEWS.

Observations on some of the Parts of Surgical Practice. To which is prefixed an Inquiry into the Claims that Surgery may be supposed to have for being classed as a Science. By JOHN P. VINCENT, late Senior Surgeon to Bartholomew's Hospital. Longman and Co. 1847.

This is, on the whole, an interesting book, and one which on many grounds invites a careful perusal. The author devotes his first chapter to the consideration of the claims of surgery to be considered as a science, and he then proceeds to give his impressions on a variety of subjects, which include a majority of those that are most interesting to the practical surgeon; and this, too, after an experience of half a century in a large metropolitan hospital. Looking at the book abstractedly, there is much in it to confirm the respect which we have always entertained for Mr. Vincent as a sound practical surgeon; regarded as a crop of half a century's growth, in so rich a soil as a public hospital, we cannot consider it as a very abundant harvest. We are sorry to observe that some parts are rendered difficult by an obscurity of style, which may possibly render them repulsive to those readers to whom they would be most useful. We found ourselves occasionally reading the same sentence two or three times, and then passing on uncertain whether we had, or had not caught Mr. Vincent's meaning. We hope, however, to give a correct general impression of our author; and, as our remarks on the chapter on Science will lead us to consider some of the impediments thereto, we shall conclude this week with a few remarks on the "Hospital System," and review the practical surgery of the work in our next number.

The author thinks that the manner in which men too commonly proceed in scientific investigations is to exercise their *perceptive* ("perceptuousness") to the exclusion of their *intellectual* faculties, and to endeavour to make out by the facts of perceptivity, merely, those relations which can be evolved by the intellect alone ("intellection"); adding, justly enough, that these are distinct powers, and that it is not uncommon to observe a vivacious perceptivity with a very low understanding. "The most perspicacious representation derived from the senses" (observes our author) "can never implant in the mind a single intellectual truth which is to become the starting-point of science. The anatomist prosecutes with zeal and ability the knowledge of the forms of animal structure, and by such labours various observers have given different accounts of the muscular fibre, just as new and improved microscopes have come into use. The fact is that this sort of discovery amounts to nothing until the mind can elicit all the relations existing between objects, and then it really becomes a scientific enunciation." (P. 9.) In conformity with such views the author considers that the chief impediments to the progress of surgical science are to be found, first, in too exclusive a reliance on objects of sense generally, referring more particularly, firstly, to mere anatomical investigation as such; secondly, to a too great disposition to investigate the molecular structure of parts; thirdly, to too great a thirst after rare and curious cases, rather than a careful study of the relations of those of more common occurrence; and lastly, in a disposition to reliance on opinion or authority. These and other causes have, in 1847, after fifty years' experience, led Mr. Vincent to observe that "it may be truly declared that the practice of surgery is little more than a collection of opinions unstable and fleeting, and generally prescribed by those whose position in the surgical society of the day gives them tone." Now, all the causes here mentioned by Mr. Vincent as hindrances to the interpretation of Nature (and many others) were particularly insisted on by Bacon, and the truth and validity of them have long since been demonstrated by experience; but we do not value the less the adhesion thus given to the Baconian method, in relation to a branch of knowledge where it is so much required, by one who has had so ample an opportunity of observing the consequences of a neglect of it. Mr. Vincent's illustrations of his argument from mathematics do not strike us as very happy; but we take this opportunity of observing that there is a very prevailing error (important in regard to natural science), that there is nothing strict or certain in reasoning but in mathematics—as if *it* were something different from other modes of ratiocination. The steps by which the intellect proceeds are not varied by the science investigated, though they may be sometimes by the particular test which it is the object to apply. Comparatively few men are well versed in logic; fewer still, perhaps, in *strictly* inductive reasoning; yet every man employs both, every day of his life; neither is inductive reasoning, in our view, *an art* of interpreting Nature, so much as it is *the* art, as has been observed in regard to logic by Whately. All modes of ascertaining the truth, and of testing it, involve proceedings the rules of which it is the object of induction and logic to give beforehand, just as grammar is not *an* art of speaking properly, but *the* rule to which all correct speaking is reducible. The truth is, there is only one mode of reasoning correctly, and it is very easy for the student in natural science to reason just as soundly as the mathematician; he has only to adopt similar cautions; he will always find that he can command certain *data*, which, if they be disputed, he can prove by exactly the same process as that on which a postulatum in mathematics is to be defended, viz., by showing the absurdity of the opposite supposition; but men will not do this: they *will* assume, which the mathematician does not; they *will* generalize from insufficient particulars, which the mathematician never does; and, when they find themselves in error, they blame the stubbornness of the material instead of their faulty mode of working it. But we shall probably recur in future to this subject; in the meantime we perfectly agree with our author, in a general sense, as to the very small claim which the prevailing surgery has to be regarded as a science, although we think we perceive the small beginnings of better times. We are glad to see our author quoting Bacon in support of his views; no observation of that extraordinary man, for example, is more necessary to the surgeons of the present day, and particularly those of anatomical schools, than—

"Sensus enim fallunt utique. Testimonium et informatio sensus semper sunt ex analogia *hominis*; non ex analogia *universi*; atque prorsus magno errore asseritur, sensum esse mensuram rerum; sensus enim *per se* res infima est et aberrans."

Now, whilst we agree with Mr. Vincent generally as to the low condition of surgery, and whilst we concur with him as to the operation of the causes which he has mentioned, still there are many others to which these are subordinate; and, bad as matters are, we protest against the surgery of St. Bartholomew's, or of any other hospital where the teachers are similarly constituted, being inferentially or otherwise regarded as a fair representation of the *status* of English surgery; but, as in explaining our objections it will be necessary to examine a little into the "hospital system," we will illustrate our remarks by a few observations on Mr. Vincent's own hospital, St. Bartholomew's. This school was raised from nothing by Mr. Abernethy to be one of the first, if not the best, schools of surgery in England, perhaps in Europe. If Abernethy did nothing else (and *we* think he did a great deal more), he at least gave a scientific *phase* to modern surgery. We care not whether Mr. Abernethy's views may be allowed to comprise a generalization, or be viewed as axioms or processes leading thereto; but he did this, he enunciated certain clear, definite, intelligible, and easily-tested propositions; and the whole of his practice was a series of as clear, as definite, and as unavoidable consequences from them. Nothing like this had existed in surgery before. Something like a step preparatory had been made in those parts of Mr. Hunter's labours which related more immediately to surgery, in the collection and, still more, in the impressing of numerous *facts*, some of them little, others not at all, observed before. Though scarcely amounting to what we should term *generalization*, they justified the *axiom* that "the whole sympathized with all its parts;" but this Mr. Abernethy, with the creative spirit of inductive observation, converted into a surgical form of vast import when he enunciated "the *constitutional* origin of *local* diseases." Abernethy said that local disease, injury, or irritation, would disturb the *whole* system; and, conversely, that *general* disturbance would influence every local affection. The treatment, therefore, of every *so-called* local malady, necessarily with him involved attention to the *whole* body; but further, as local requisitions, strictly so called, were for the most part simple and obvious, and consisted so largely in avoiding that which was hurtful, so, they were easily secured. But the care of the general system obviously involved requisitions much more varied, more recondite, more important; so that in every case, however (so called) local, the care of the general system formed in Mr. Abernethy's plan the leading feature of the treatment. It is altogether a mistake to suppose that he thought nothing of *so-called* local applications; and no error can be more gross than to suppose that he thought of *nothing* but the *stomach*. He did think, however, that the media through which the system was more generally disturbed were the digestive organs, and therefore his chief attention was directed to ensure the tranquillity of them. He also regarded impressions acting on the nervous system

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primarily as very important sources of constitutional disturbance; but, as he had little confidence in ministering to this by medicine in a direct sense, so he chiefly addressed his measures to the nervous system mediately through those organs "so wont to disturb it," viz., the digestive organs. Plain and simple as these propositions were, they were, on their first enunciation, met by the inflictions so often awarded to advances in science; instead of being carefully examined, they were first disputed, then ridiculed, lastly declared to be what every one knew before, and then universally recognised, *however imperfectly followed*, in all parts of the civilized world. Now, that many medical men were aware of the *facts* observed by Mr. Abernethy is true; that we see practical recognitions of some such influence in every age, and almost in every family even, may be admitted; and thus (to use a phrase of Dr. Wordsworth on another subject) there might have been a thousand Copernicuses of Mr. Abernethy's views, but he was their only Newton.

Now, to show how little this was due to the hospital system, this man was allowed, under "the system," to be twenty-eight years assistant-surgeon to the hospital of which he had all along been the distinguished ornament, and whose school he had formed. Mr. Abernethy was in many points of view an unusual, in many an extraordinary, man. *We* think that upon *most* subjects he had a good deal of the "*non tetigit quoad non ovuavit.*" However that may be, few would deny him considerable originality, none that he never neglected to add to and adorn his lectures with the inculcation of a sustained morality in our professional relations. He had a most remarkable felicity in simplifying difficult subjects, and placing them before the student in forms most easy and attractive. He had a penetrative sagacity which enabled him to anticipate and sympathize with the student on points which were difficult or repulsive. He had always at command a variety of illustration, and with a changeableness of manner—now serious, now gay, now quaint or humorous—always natural, could at pleasure command the seriousness, sustain the attention, awaken the sympathy, interest the feelings, enliven the fancy, or excite the risibility of his audience; and still he understood so well the *ars est celare artem* that, although nothing was done without its object, yet all seemed to arise from the interest he felt in the subject rather than from any desire to impart that interest to his class. As we have no opportunity in these passing remarks to do Mr. Abernethy justice, we may possibly at some future time return to this subject.

Now, it were to have been wished that the man who thus founded the school should have been succeeded by men who, if not of the same depth, order, or variety of talent, should at least have had kindred minds, as being, one would think, most likely to have sustained, if not the onward movement of the school, at least that *status* which it had derived from its founder. We believe that Mr. Abernethy had formed many surgeons out of the hundreds he had educated who might have been fitted for this purpose; but the hospital system required that the choice should be made theoretically from, it might be, five or six *apprentices*, but virtually restricted to two; and who were they? Messrs. Lawrence! and Stanley!!—*Risum teneatis*, do we hear; nay, reader, this is no subject for laughter or smiles.

Now it appears to us, and we judge from their public acts only, that few men could have been found who were more different from, and we think more antithetical to, Mr. Abernethy than Mr. Lawrence or Mr. Stanley. We beg distinctly to repudiate the smallest intention to offer any opinion, much less to insinuate anything, in disparagement of their qualifications as practical surgeons; we take these for granted. Mr. Lawrence may have peculiarities, characteristics; and who has not? His early quarrel with his friend and master; a remarkable lubricity of conviction, a kind of easy plasticity of opinion, not common even in public matters, and which have been exemplified scarcely less drolly on points connected with science, than they have on what are called medical politics. His evidence before the first committee of the House of Commons, and numerous other public acts, evince considerable peculiarity, but we fear they are not original. Moreover, Mr. Lawrence has been an industrious and, as long as surgery is to remain the thing of opinion which it now is, he still remains a useful compiler; though, perhaps, in this respect, inferior to Mr. Samuel Cooper; but here, again, we trace no originality: on the contrary, although as boy and man we have, we believe, read the whole of Mr. Lawrence's works, and have often derived pleasure from his nicely correct, clear, level style of writing, yet we cannot charge our recollections with a single original idea. It has seemed to us that, though most men have a dash of everything in their composition, originality is just the thing that Mr. Lawrence has not. Even when he enunciates a new application of some well-known principle, he seems to us to get out of his depth. Any one who will read his paper on Erysipelas, or his treatment of Strangulated Hernia, will at least *understand what we mean*. Now, originality was in Abernethy a very leading feature; but, again, Mr. Abernethy, in the Postscript to his Lectures at the College, informed the profession that from an early period Mr. Lawrence had been accustomed to "decry and scoff at what he taught as Mr. Hunter's opinions," and that he, Mr. Abernethy, continued to teach them amidst "the controversy and derision of such of his pupils as had become his proselytes." Now, here was evidence of difference of opinion, and upon points, too, somewhat closely connected with the surgery which it was Mr. Abernethy's object to teach, and by which he had founded a school in number and reputation superior to any which had been formed by any single individual in London, or perhaps anywhere else. We are by no means certain that there were not other differences of opinion yet more grave, which, however little they might affect Mr. Lawrence's qualifications in any other way, still had important bearings on his being the most happily chosen *successor to Mr. Abernethy*. Mr. Abernethy taught definite principles, both in surgical and moral science, which, whether right or wrong, had been severely tried; his school had been founded on them; and we should have thought the onward progress of science, as well as that of the school, had been most auspiciously promoted by the more refined and improved application of those principles on which it had been raised. We should, therefore, have regarded any great differences of opinion as of great consequence, and we think the results have shown such apprehensions to have been well founded. Extensions of Mr. Abernethy's principles have been achieved it is true (as we think), and by those who were his pupils, but not, so far as we know of, by any of the teachers of St. Bartholomew's.

We agree with Mr. Vincent, when he states that the mere possession of *information* does not constitute a scientific mind, neither does it in our view at all necessarily qualify a man to be a teacher. A man might tell us a number of facts which were to us new or interesting, without our necessarily dreaming even what science was. He might *conceivably* tell us, for example, a great deal about a country where people put the horse before the cart, and of another where the cart was placed before the horse; that placing a weight on wheels considerably facilitated its locomotion, and thousands of others, without giving us any idea that there existed anything called "mechanics." So a man may give a clear, orderly exposition of everything that every surgeon in the world did in all the diseases under the sun, with the plaisters and potions, and the general results of them, together with such as had been retained and thought best in 1847, and yet never teach a student the first thought that should form a starting-point (as our author observes) for the formation of science. Now, something of this kind suggests itself to us when we compare one of Mr. Lawrence's lectures with Mr. Abernethy's. Abernethy's lectures had plenty of faults, as regarded details; they were careless, almost slovenly; but he taught principles, and that very clearly, to those who would listen. Now, Mr. Lawrence's lectures appear to be excellent expositions of the ordinary facts and details of surgery, but, as it appears to us, more as an art which had reached the *ultima thule* of his "perceptuosness," or his expectations, rather than as the inductive gatherings dealt out by a philosophical mind—as the first steps only, the humble but necessary beginnings of a beautiful science which was one day to result, in successfully tracing through the relations of surgical maladies those laws on which the health of nations depends; and to the prevention of which maladies, by the light of an inductive philosophy, it was the object to animate and sustain the exertions of the rising generation. Of Mr. Stanley we desire to say but little. We regard it as a great misfortune to any man to be placed in any situation for which his organization appears ill adapted: as demonstrator of anatomy vociferating at nine o'clock punctually the facts of descriptive anatomy. With a zealous *iterum iterumque* always serviceable to the student; with just enough, too, of metropolitan peculiarity and a curious oral gesticulation to suggest the *locus in quo*, the indigenous origin, and give life and fun to *the* foggy mornings without exciting ill nature, we think Mr. Stanley was excellent; but, regarded as a successor to any part of Mr. Abernethy's duties, we will only trust ourselves with expressing the opinion that he was unfortunate. But this was the "hospital system," which neither had furnished nor admitted of any other arrangement. Now, so far from being surprised at any arrangement, however infelicitous, arising out of that system which involves so gross an absurdity as restricting hospital appointments to its apprentices as such, we should be surprised at any other consequence. For, even, supposing that giving men a prescriptive right to a provision did not of itself notoriously tend to deprive them of the very best and surest stimuli to exertion; that, therefore, apprentices were to be regarded as equally supplied with motives for exertion; even then they hardly amount to more, perhaps, than one-twentieth of the class: so here the chances are not only as twenty to one, or something like it, against the maximum being obtained in aid of the interest of science, but leaves it actually quite possible that a man may be appointed surgeon whose pupillage was remarkable only for idleness and irregularity. Again, such a system evidently commences a boy's career badly; he pays Mr. A. or B. 500 or 1000 guineas, not because Mr. A. is a man of science or a distinguished teacher, so much as because he is a *surgeon* to an hospital, and therefore gives his pupil the privilege of becoming eligible to the same post, which post he, the master, acquired not from his talents, his industry, or his high character, but because he had grown into the elder apprentice at the time of his election. This mercantile perceptivity is but the commencement of what the practice of the "hospital system" is an unceasing and ubiquitous continuation. To numerous public advertisements, of late years have been added something very like the civil whispers of private solicitation; the money-value of popularity among teachers has, drolly enough, produced certain curious *bizarreries* of position amongst the surgeons themselves, as they are or are not teachers; so that we question whether at this moment there is a hospital in London in which a genuine cordiality exists amongst the whole even of the medical officers. Then for our "author's perceptuousness," everything that new theatres, increasing catalogues of morbid anatomy (too often miscalled pathology), microscopes, collegiate arrangements, are all combined to fill up the imposing externals of a public school. As Mr. Vincent observes, there is a "huddling together" of the greatest quantity of *agenda* in the smallest space. No time or opportunity, much less provision or arrangement, is made for thought; so that, regarded as arena

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where the cultivation of science is supposed to be the object of every arrangement, the whole seems very little better than a successful farce. But we said ubiquitous. Yes, because what we have been remarking on as observable in one hospital is merely the type of a system exemplified in most others. The College is but a repetition of the same system under another form, and by the very same men. The Royal Medico-Chirurgical Society is tainted by the same "system." Every avenue, however fairly the word science may be made to grace its entrance, is occupied by the mercantile "perceptivities" of traders in teaching, which have thus spread far and wide under the "hospital system." The appetite for position is so keen that the men who support the system are not even fair to each other, and sometimes find justice only in the higher tone and better feelings of the men they have injured. In the appointment of president to the Medico-Chirurgical Society, some few years since, in which our author (and we beg Mr. Vincent's attention to this, as a system which, if he has not assisted to uphold, he has done, so far as we know, nothing to expose or correct), from not being, we suppose, sufficiently manœuvring, was passed over, and with the additional indignity of a junior colleague of his own being chosen. We believe that, had he required any, he would have found much sympathy from the very men who had suffered under the "hospital system." Whilst on this subject, and in relation to the cultivation of high and liberal feelings in the profession, we would ask, in virtue of which of those Christian courtesies which should regulate the intercourse of men engaged in what ought to be a holy calling in a public hospital, was it that Mr. Stanley, we will not say intrigued to obtain, but allowed himself to be placed in the chair, in precedence of an older fellow and a senior colleague so unexceptionable as our author, and who had the highest compliment paid him from the founder of the Bartholomew School, who, during his own tenure of office, had been heard to observe that "Mr. Vincent was the best practical surgeon about the hospital." But we must leave this subject for a few hints to Mr. Vincent. Why has Mr. Vincent—who has now, we see, observed the errors—made no effort, *quo ad* the interests of science, to correct them? Why has he not proposed something, if only to register his better perceptions? Would not, for example, the too great cultivation of mere perceptivity have been judiciously opposed by a proposal to the governors of an establishment so enormously rich, who have been so ready to spend thousands in bricks and mortar, to apply a few hundreds in the appointment of a professor of inductive philosophy, and have made it his business to give lectures exemplifying its mode of application, and the mischief of its violation in medical science? Would not throwing open the hospital to *concours* have opened to the apprentices paths to honours, of which, under the present system, the attainment is impossible; and have supplied not only the prospective interests of science, but what is even more to the point, the patients in the hospital with the maximum of the current talent of the school? Does our author not think that the appointment of *hours* for operating would not somewhat repress the appetite for display—possibly, too, the number of operations—and have been quite as useful to the student, and fully as humane to the patients, as appointing one *day* in the week? These, and many other points, had we space, we would urge on Mr. Vincent, who could, even yet, we think, address a series of letters to the governors, attended with the greatest advantage. To lay open the system in all its bearings will require a few articles devoted specially to it; but we have said enough, for the moment, to show why we should object to the surgery of St. Bartholomew's, and hospitals so constituted, being regarded as representing English surgery: on every side, besides the impediments to which we have referred, we see practical exemplifications of the superiority of surgery out of the hospital. We will only, in illustration, make two remarks—the one general, the other particular. The only establishment which recognises the necessity of providing pure air for cases specially requiring it, or for convalescents (with the hundreds of thousands of pounds at the disposal of the different hospitals), is a small, very small special charity; let that suffice for a general indication. For particulars, we would consult almost any periodical; but, to name a case, we very much doubt whether, out of the hospitals, six surgeons in England would have sanctioned the ligature of the common iliac in the case where it was had recourse to by Mr. Stanley; and we trust that still, for the honour of English surgery, the case may undergo full public discussion.

There is a good deal in Mr. Vincent's opening chapter which we hail with pleasure. We imagine that there must have been much of the mist of early prejudice to get through before he could have avowed the opinions he there expresses. It may, therefore, seem unkind, almost ungrateful, as lovers of science, to charge on him the very fault which he so justly fastens on others; for certain it is, that, in a much higher sense, Mr. Vincent has rather rested too much on his perceptuousness, for he has perceived, not facts merely, but relations to the interests of science which timidity, irresolution, or something we know not, has withheld him from wresting to their legitimate and best purposes, the improving the plans and correcting the abuses of a great public hospital.

We shall next week proceed to the more agreeable task of reviewing the practical part of our author's book, in which much will be found to interest the practical surgeon—much that we approve of, and some things in regard to which we differ; but we hope to do so in a spirit which would much rather excite the reader to judge for himself than induce him to rest satisfied with our representations.

THE MEDICAL TIMES.

SATURDAY, NOVEMBER 20, 1847.

THE COMMITTEE OF POOR-LAW MEDICAL OFFICERS.

The meeting of Wednesday last was extremely well attended, and the matters discussed of considerable importance. The most important was the arrangement of a classified series of inquiries, to be addressed to every union surgeon. The value of the returns needs no remark as a basis of legislative or Government intervention; and, after a very diligent and careful discussion, a tabular form was unanimously agreed on, and ordered to be printed. During the consideration of this important document, the Committee had the benefit of several useful suggestions from Mr. Farr, the Deputy Registrar-General.

In the course of a few days the Committee will have communicated with every union surgeon in the kingdom.

MEMBERS OF PARLIAMENT AND THE PROFESSION.

The early opening of the Parliament gives an opportunity to the Council of the National Institute to bring before the notice of the members of Parliament their claims for incorporation, and to solicit the support and advocacy of those enlightened senators who desire to see the broad principles of truth and justice established among all classes of the community, and who feel that the true destinies of society at large, and of every section of which it is composed, are to be brought out and perfected through the medium of just laws, enlightened intercourse, and a wise encouragement of moral and intellectual progress.

We need not say that the cause of the general practitioners is identified with the advancement of these sound and universal principles: theirs are the objects with which every intelligent man would sympathize, and every liberal man delight to see realized. It can be no longer tolerated that a body of men whose usefulness to the public surpasses that of any other class of society—whose attainments, despite the covert but no less malignant aspersions of the representatives of the Colleges of Physicians and Surgeons before the Select Committee of the House of Commons, are highly honourable to our profession; and whose station in society, won for themselves by their devotion to their duties, their rectitude of character, and their superior knowledge, is now emulative of that of the more favoured, but, perhaps, less worthy satellites of other institutions—we say it is not to be tolerated that this body of men should be deprived of the benefits and respectability of a legal incorporation, and should by this deprivation be defrauded of their due weight and influence amongst the institutions of the country. Here is a large and useful body of men, who have no name by which they may be known to foreign nations, no authority through which they can treat with and be received by our own Government, and who are unjustly stripped of all the dignity with which an incorporation would invest them before the English public.

Politically, this is their situation; and in the regions of science it can be proved, incontestably, that the governing bodies of the existing incorporations have done all that in them lay to resist the forward impulse which a superior education and the progress of society had created, and, both by positive acts and malicious statements, to limit the acquirements, and to degrade the intellectual character, of this ill-used body of men.

However, day by day they are growing stronger, and are fortifying the position which, at the establishment of the National Association, they took up; and the public, at the same time, are becoming better acquainted with the bearings of the question, and especially with the anomalous and unfair position, in the profession, of their ordinary medical attendants.

Before this number shall be published the Parliament will have met, and the members will have assembled in London for the transaction of their parliamentary duties. It is incumbent on every member of the Institute to obtain an interview with such members of Parliament as his professional duties or other relations may enable him to call on, without intrusion, and submit to their attention such an outline of the principles and objects of the Institute as shall be easily comprehended; so that, when the subject comes again before the Parliament for discussion, the members may be well informed upon the false position and the just claims of the general practitioners, and prepared to give this body their zealous and enlightened advocacy.

It is probable that, during the next session of Parliament, a committee will be appointed to continue the inquiry into the subject of Medical Reform, and we conclude, as a matter of course, that the Council of the Institute will be heard on the part of the general practitioners.

We understand that the Council are assured of their right to be heard, and this is a sufficient answer to the audacious assertions that have

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been of late made in the pages of another journal about the Council of the Institute having disgusted the Government, and lost all influence upon this question. Such statements, however, appearing in such a journal, are always understood in a contradictory sense, and, therefore, require no trouble on our part to refute.

It must be borne in mind that the general practitioners were not examined, either individually or by representative agents, before the special committee that sat last session, and, consequently, the House is not in possession of the arguments that the general practitioners might adduce to justify their claims. The evidence that we are now publishing is, therefore, *ex-parte*; and, after all, what a lame and impotent case the College authorities make of their vested interests and their exclusive rights. They do not now appear to have *any*, or, if they conceive that they *have*, they make a very pusillanimous defence of them. Conscience makes cowards of us all. If the Council of the College of Surgeons and the Censors of the College of Physicians content themselves with such feeble and shallow arguments to sustain their artificial ascendency, we shall begin to think that the old adage, "Corporations have no conscience," is undergoing a practical refutation; and that the force of public opinion, in our profession, can extract a pang of remorse from the callous insensibility of inveterate self-interest, and bring a blush of shame to the lean, cadaverous, parchment cheeks of the functionaries of an icy-hearted corporate oligarchy.

THE MEDICAL CORPORATIONS AND SANITARY REFORM.

It is a singular circumstance in the history of medical colleges that, while established for the express purpose of guarding the public health, they have scarcely ever been found carrying out the intentions of Government in giving them a corporate existence. The examination of candidates for license to practise seems to be, in their estimation, all that is required of them, and they rejoice in the luxury of good incomes procured with little expenditure of time or talent. Diplomas are intimately related to education, and the value of the former ought only to be estimated by comparison with the latter. If this has been of a high character, there can be little doubt that the majority of those who obtain authority to practise any branch of the healing art will be entitled to public respect and confidence; but if, on the contrary, it has been defective—it matters not what professional titles a man may have conferred upon him—he will be the means of inflicting a vast amount of injury upon his fellow-creatures. The State, therefore, cannot be condemned for acting improperly when it committed into the hands of medical institutions the education of individuals who sought in after life to follow the practice of medicine, and the authority of testing the manner in which they had used their opportunities, by a stringent examination. In conferring these powers upon corporations it acted benignly, and those who have abused them have conducted themselves ungratefully.

But it is evident that the State, in granting charters of incorporation to medical colleges, contemplated something more than the mere act of giving diplomas to worthy candidates, viz., that of promoting by every means in their power the public health: it was but one part of their duty to send forth men skilled in the art of administering the best remedies to the sick members of the community; it is implied, if not expressed, in the charters of incoporation, that those to whom they were granted should use all the means at command to remove those causes which produce disease and death. If such were the case, then is it evident that, as regards the great question of sanitary improvement, every medical corporation of the three kingdoms has been signally remiss in performing its duty. Public attention has been directed to the fact that the preservation of health greatly depends upon the manner in which houses are constructed and streets laid out, and that the inhabitants actually have in their own hands, to a very great extent, the issues of life and death. This subject was first broached by members of the medical profession, and with great pains and expenditure they have maintained an agitation to the present time, which promises speedily to produce the most desirable results. It is true that, in this great work, they have not laboured alone, but have attracted around them numbers of the laity, without whose assistance they could never expect to accomplish their benevolent intentions. But, we ask, what medical corporation has ever bade the little band of sanitary reformers god-speed, or stretched forth a helping hand when they were struggling against difficulties? We look in vain to England, to Scotland, and to Ireland, to find one who has ever done this. In Edinburgh the fever has swept away multitudes, and causes have been pointed out which have greatly increased its virulence; but the Colleges of "Modern Athens" have been content to look on, unmoved as the Roman Brutus, when he gave his children to the lictors. In London, the College of Surgeons could suffer, without a murmur, the stench of the Portugal-street burying-ground to be constantly under its nose, and seemed so much in love with it as to make no effort for its removal; the Physicians' corporation, influenced by pride, removed from their old establishment in Warwick-lane, which, to their disgrace, has been converted into butchers' shambles, and in Pall-mall they have with singular contentment snuffed the ill-scented gale, occasionally wafted across the Park from the regions of Strutton-ground and Westminster Sanctuary. The Blackfriars Company, bent upon carrying on a thriving trade in drugs, chemicals, and certificates, have never made even a single attempt to benefit their tenants by properly repairing the wretched old houses in which some of them dwell, or of preventing the burial of the dead close against their windows. Public attention has been raised without their assistance, and amongst all the petitions that have been sent to the British Parliament, praying that a measure may be passed which shall render more salubrious densely inhabited cities, none have been found from medical corporations.

At the present time, when the cholera is at our doors, they exhibit the same stupid apathy, and, if we are permitted to form a judgment from their conduct, we must arrive at the conclusion that they care not how many thousands of the population are swept away by the Asiatic scourge when it invades our country. Even now there is time for something to be done which may repair a damaged reputation; and, by entering the vineyard at the eleventh hour, they may obtain rewards with those who "have borne the burden and heat of the day." Doubtless, after the advent of the cholera, the public and the profession will be favoured with reports of meetings on the subject under the roofs of collegiate houses, museums will be enriched with pathological specimens, and learned dissertations published under the auspices of professional corporations. All these splendid doings will probably leave the matter just as it was found, or, if a small amount of knowledge be obtained, it will be at the expense of much human suffering.

We consider it to be as much the legitimate province of our medical corporate institutions to advocate measures which appear eminently calculated to lessen the amount of disease, as to provide the public with well-educated physicians and surgeons. The undertaking may not be quite so profitable, but it is equally honourable; and, if it had been prosecuted with the same zeal as the traffic in diplomas, it is probable that at the present time our cities in an epidemic might bear some resemblance to cities built of stone in a conflagration.

That our English corporations never dreamt of becoming apostles of health in the manner referred to, is evident from an inspection of their *curricula* of education: in not one is there a command given for the student to devote his attention to the important science of public hygiene. Preventive medicine has been considered by those who have authority in the profession as a thing of no consequence, and hence they have made no provision for its cultivation. The mission of the medical practitioner is supposed only to commence when disease has invaded the human frame, and drugs and chemicals are called in requisition; this, however, is doing an injustice to his high calling—making it little better than a trade by which an individual may obtain a livelihood, not a profession whose principal attribute is benevolence, and whose efforts are as much directed to prevent sickness as to remove it when manifested.

The Colleges are now suffering the consequences of their reprehensible neglect—Government never consulting them in the matter of sanitary improvement, and the public viewing them as institutions in which they have no interest, and from which they cannot possibly derive any advantage. If, then, destruction were threatened, scarcely would there be an effort to avert it, and they are only tolerated with the hope that some means will be adopted by which they may become what they ought to be—the nurseries of science, and the guardians of the profession.

THE FIRST SESSION OF THE NEW PARLIAMENT.

In a few days the Imperial Parliament of Great Britain will assemble to deliberate upon some most important subjects which will be submitted to its consideration. The session will, probably, present many features of interest to the members of the profession, as there is little doubt that the subject of Medical Reform will be again agitated, and tinkering politicians will be all activity to get themselves renown by the enactment of some measure, without any regard to the future welfare of those whom it is ostensibly intended to benefit. We are compelled to acknowledge that we look upon the present situation of the medical community as particularly critical: for, with a strong conviction that some change is necessary, there is danger of defective measures being enacted into laws, in consequence of sound reform being so long delayed. It is evident that the present order of things amongst us cannot, and ought not, to continue much longer, and patience and perseverance are only required to bring about for the general practitioners a consummation devoutly to be wished for. Any

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legislative enactment, however, to benefit the profession must contain in it the means of correcting the abuses of the old corporations, of raising the standard of education, and of incorporating the members who are engaged in practising medicine, surgery, and midwifery.

The Colleges of Physicians and Surgeons, whatever may be their pretensions, are no friends to good government or good medical instruction. They have been proved guilty of misrule, oppression, and avarice, legislating principally for their own interests, and exhibiting no concern for the advancement of science, or the welfare of the profession. In a pamphlet published by Mr. Edward Lee we have the following remarks, quoted from Dr. Grant:—"The ignorance and supineness of our Legislature as to everything connected with medical affairs, the total want of representation of our profession in the government of the state, and the despotic powers granted to our irresponsible corporations, have rendered the medical community of England not only destitute of all redress or appeal against arbitrary oppression, but more disunited, disaffected, and degraded than the subjects of Eastern despots. The irresponsible members of the self-elected juntos, acting collectively in the secrecy and disguise of committees, clubs, and councils, are guilty of acts, as every one knows, which they would not dare to perpetrate on their individual responsibility, and thus they have unblushingly, but notoriously, sunk the standard of medical education and attainments in our country; they have dismembered and disaffected the profession; they have made its contention a proverb of ridicule, and ruined its respectability; they have obstructed every advancement, and especially in such departments as depended more immediately on their influence for support; every improvement introduced has been made, not by their aid, but always in despite of the opposition; they have debased the general practitioner of medicine from a benevolent and charitable philanthropist to an arrogant, contentious, illiberal, avaricious, and selfish misanthrope."

With regard to medical education of candidates for the surgical diploma of the London College, the same author says, "The laxity of examination was such, according to the evidence of Mr. Guthrie (himself a member of the Council), as quoted by Sir J. Clark, that many were allowed to pass who could not spell very common words in their native language. What the requirements of the candidates for the College diploma were before 1836, Mr. Guthrie does not inform us; but such, it seems, is the deplorable ignorance of many who are permitted to pass the Royal College of Surgeons. Is it surprising that quacks and quackery should thrive, when such is the education of many of the regular practitioners? Such a state of things ought not to exist in a civilized country, and would not have existed at the present day, had the institutions intrusted with the regulation of medical education done their duty." A registration like that introduced into Parliament last session would leave these old sinners and enemies of the profession with the same powers as formerly, to benefit their own pockets by unjust legislation and burlesque examinations; with this difference only, that competition would become greater amongst those who trade in diplomas, from an admission of the Scotch Colleges and Universities to the same privileges as English medical corporations now possess. If the bill had proposed tethering the Scotch by a shorter rope, Dr. Burrows and Mr. Lawrence would never have appeared as antagonists to it. We have said before, and repeat it now, that if the general practitioners do not insist upon a charter of incorporation for themselves as the groundwork of sound medical renovation, they may rest assured they will yet suffer greater indignities than they have hitherto done. The session being about to commence, they should buckle on their armour, and, without delay, vigorously pursue those measures which experience has taught them will alone make them increasingly honourable, useful, and powerful.

Another measure which will occupy the attention of Parliament, and in which the profession is deeply interested, is that of Sanitary Reform. Medical men were among the first to show its necessity, and have been since the most unflinching advocates of it. The principal facts brought forward to show the wretched condition of our large cities, and the sad results to the health and happiness of the population in consequence of it, have been promulgated by the members of our profession. That immediate legislation is required will admit of no doubt, when it is known that, by the neglect of sanitary measures in England and Wales, the lives of 137 persons are forfeited daily. In this metropolis, the mortality from preventible causes is truly frightful. Dr. Hector Garvin, in a pamphlet lately published on the "Healthiness of London," says "In the metropolis there are about 266 deaths every week, nearly 38 deaths a day, or considerably more than one every hour, *over and above* what ought to happen in the common course of nature. Now, it has been calculated, that for every death which takes place, there are twenty-eight causes of sickness which do not end fatally; we have, therefore, 387,296 cases of sickness occurring in the metropolis every year which are unnecessary and preventible: 13,832 lives could be saved—more than a third of a million of cases of sickness could be prevented." The members of the medical profession, in becoming the champions of sanitary reform, have been animated by one motive only, that of benevolence. Here there can be no mistake, when the judgment is rightly exercised; and the public will one day award them an unfading crown for their exertions. It must be very encouraging to those who have long been in the field to know that there is a prospect of their reaping some reward for their toils. During the coming session of Parliament a bill will, in all probability, be passed, which, while it may not remedy every evil, will yet accomplish a large amount of good. The threatened invasion of the cholera will, no doubt, serve to hasten the measure; if so, its advent here will be memorable, not only for the evils which it may inflict, but for the good which it will produce.

It is our fervent hope that the session will not pass away without some important benefits to the profession and the public.

POOR-LAW MEDICAL RELIEF.

Blandford, Nov.

TO THE RIGHT HON. SIR GEORGE GREY, BART., &c. &c., HER MAJESTY'S SECRETARY OF STATE FOR THE HOME DEPARTMENT.

SIR,—The medical relief of the sick poor, under the provisions of the Poor-law Amendment Act, forms a subject of paramount importance to society at large; and the mode in which that relief is afforded, as well as the intrinsic value of it, must greatly influence public opinion and confidence in the utility and efficiency of the new poor-law itself.

No wise Government will leave this question in its present unsatisfactory state; and an enlightened Home Secretary like yourself will not be offended or annoyed by a plain and candid exposition of the evils and defects of the present arrangements, as well as a safe and efficient remedy, though it comes from the practical hands of a union surgeon.

Having been seventeen years in daily professional attendance on the sick poor, I have seen much of the working of both the old law and the new. I have acted as medical officer under a considerate and liberal board of guardians, for whom, individually and collectively, I have great respect, and with whom I have gone on comfortably and amicably for twelve years. I have, therefore, no personal complaints to make, and no personal interests to serve. The suggestions which I have to offer are purely for the public good. Many of my professional brethren have not been so fortunately situated, and bitter murmurings from various parts of the country indicate an uneasy and dissatisfied state of the medical body, who are labouring under an ill-judged and bungling system, which calls for great zeal, activity, and expense on the part of the union surgeon, and great forbearance and sense of justice on the part of boards of guardians to render even tolerable. In many instances the medical officer is so miserably remunerated that he may be said to be required to make bricks, as the Hebrews of old, without the necessary allowance of straw; so that no wonder he considers his state analogous to that of Egyptian slavery, and vituperates with unphilosophic asperity the poor-law commissioners, who are not wholly guiltless, and the boards of guardians, who, often too exacting, require "the pound of flesh," which is "written in the bond." It may be supposed by some that these grumbling remonstrances and public meetings, which the newspapers re-echo from one end of the kingdom to the other, are symptoms of irritation without sufficient cause. To prove, then, the system unsound under which medical relief is afforded to the pauper population, I might appeal even to the volumes of annual reports published by the poor-law commissioners themselves. They commenced operations, in their first year of office, very boldly, and avowedly on the "tender system," as it was called. Unions were recommended to advertise for the cheapest doctor. A wretched parsimony was the *beau-idéal* of good management. If the resident practitioners of the district resisted the application of the screw-system, they were to be intimidated by the introduction of youthful aspirants fresh from the dissecting-room. The unsuccessful, the inexperienced, and the bankrupt, were to be invited by boards of guardians to swamp the resistance of those who were established, well known, and respected in their localities.

Bridgwater gained notoriety in this crusade; but I need not enumerate instances of this absurd and tyrannical mode of proceeding, which generally ended disgracefully, and of which the commissioners at last became heartily ashamed.

Nearly all the boards of guardians, however, were tempted by a false economy, to fix the lowest possible salaries for their medical officers, even where they did not advertise for the lowest tender. Medical men were invited to accept their terms, on the assurance that new pauperism was to be a very different thing from old pauperism. In fact, they were informed, that the object of the new law was to extinguish pauperism altogether; and that, of course, the medical relief required would be annually less and less—a sort of "diminuendo" movement, very gratifying to the ratepayers.

I find, by an examination of my own quarterly returns, that the number of cases applying for medical relief became, on the contrary, every year more and more numerous; that the duties involved, and the reports required, became progressively of a more onerous character. Whatever might have become of the pauperism requiring food, the pauperism requiring physic became annualy more plethoric.

I have no doubt the testimony of the majority of the medical officers of the kingdom will show a similar tidal movement. The silence of the poor-law commissioners, so skilled in statistics, is on this point extremely ominous and suspicious. I have never seen a single general abstract of the number of cases annually attended by the union surgeons, though our regular quarterly returns render such an abstract very easy of computation. Such abstracts are universally published by every hospital in the kingdom, together with its annual expenditure; but the commissioners appear always to have kept the number of paupers thrown on the care of their medical officers in the background.

I do not wish to make any attack upon the commissioners, to whom their work was new, and

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mistakes somewhat excusable; but I must mention historically, that various schemes have been from time to time proposed by them, in justification or palliation of their first false steps.

The "tender system" received its deathblow from the various memorials of an indignant profession, and from the instructions of a committee of the House of Commons. It was therefore withdrawn from public recommendation.

"Self-supporting medical clubs" have been gravely proposed to stem the tide of medical pauperism, and here and there have been adopted, where a popular medical practitioner has thrown himself into the movement; but as a general measure they have signally failed.

Dutch auctions and self-supporting medical clubs have been succeeded by the proposal of the payment "per-case" system, which, though formally recommended *ex cathedra* from Somerset-house, has been rarely adopted by boards of guardians. The average number of cases thrown upon their medical officer induced boards of guardians to make certain arithmetical calculations, on the basis recommended, of 6s. or 6s. 6d. per case. There are generally two or three steady calculators in every board, well versed in the rule of three, and for economical reasons the "per-case" system has never been a favourite scheme with them. For similar prudential considerations, the "per-case" system has, indeed, found favour in the eyes of medical officers, more particularly if situated in populous districts; but there has always been a difficulty in calculating the amount per case which is suited to a town population close at hand, and the amount per case suited for remote villages and hamlets some five or six miles distant from the nearest surgeon. The difficulties in the way of adjusting these matters have rendered the "per-case" system abortive. The fixed salary, with a scale of fees for severe surgical and obstetrical cases of a definite character, is now the generally accepted plan, and, after all, is the best method of remunerating the medical officer, and of rendering him prompt and diligent in the performance of his duties. The fees adopted by the commissioners in their last new orders have been recommended on competent surgical authorities, and are generally satisfactory to the profession.

The fixed salaries for the usual routine of work is often, however, ruinously low, and quite disproportioned to the number of cases treated, and the distances which the medical officer has to travel to visit his pauper patients. Now, however anxious the medical profession may be to see this anomaly removed by an adequate increase in their salaries, I do not believe that such a pecuniary addition alone would reach or remedy the whole of the evils connected with the present system. I do not wish to take a mere *ex-parte* and professional view of the subject. The interests of the ratepayers and the welfare of the poor are important elements in the question; and, while I would see the union surgeon raised in public estimation and better remunerated, I am anxious at the same time to see the poor better satisfied, and boards of guardians less liable to the suspicion of driving hard bargains with weak and ill-paid public functionaries. The problem to be solved is not a difficult one, and common honesty and common sense will mightily assist the mathematics of the question. A fair and adequate, though by no means a lucrative, remuneration of the medical staff of the country, combined with well-regulated arrangements under a professional board of management, and an ample and unsuspected supply of the necessary medicines required, can alone reconcile the conflicting interests involved, and must form the basis of any permanently satisfactory plan of medical relief to the pauper population.

It must be allowed by all who have thought much on the subject, or have been engaged practically in the working of the system, that there exists defects and inconveniences in the present mode of affording that medical relief which is now so liberally granted to the millions of sick poor belonging to our pauper population. These defects, so greedily fastened on by the press, are not, unfortunately, mere errors of detail which can be corrected locally, but fundamental errors of principle, beyond the reach of zealous officers or considerate boards of guardians.

First, then, the system is defective in appropriate professional superintendence. Boards of guardians, however well constituted to manage the details of parochial relief, are quite incompetent to solve many of the medical questions which must necessarily come before them.

These questions may touch on the skilful or unskilful performance of the medical officers' duties—the cases which require promptitude, the cases which admit of delay, or the complaints reasonably or unreasonably alleged by the poor or reiterated by the press. There are many suggestions of an important and instructional character, of vital statistics, and of public health, which might emanate from a superintendent board of medical directors, to whom special reports of the more important cases, and of the rise and progress of epidemic diseases, might be regularly made, and would, no doubt, be rendered available for the advancement of medical science and the safety and welfare of society at large.

It is amusing to hear sometimes of the learned critiques of our boards of guardians, even on the medical terms by which we are obliged to designate diseases, especially in the absence of some amateur doctor or learned conjuror among them, to whom they usually apply as to a medical dictionary. Now, the poor-law commissioners themselves, however well selected for other purposes, can be but imperfectly acquainted with professional subjects, which are intimately connected with those sanitary improvements which the present Administration are considered anxious to accomplish. Either the medical boards of the army and navy are unnecessary, or *à fortiori*, a similar establishment is requisite to regulate and assist the two thousand eight hundred and sixty medical officers employed in the parochial unions of England and Wales.

The unscientific public may not be aware of the professional value of the able and useful reports which have been published under the authority of the army and navy boards; or of those wise regulations by which they have assisted the army-surgeon or the navy-surgeon in actual service, in affording prompt and skilful relief to the poor soldier or sailor, subject to all the accidents of life, and the diseases of all the climates of the globe.

Sir Edmund This and Sir Frankland That may be accomplished gentlemen, and well informed in political economy, but must be quite incapable of mastering the various medical matters connected with the poor-law commission. An efficient board of medical directors, who know well the exigences of civil practice, is the first step I would propose in the path of further amendment. The second fundamental defect in the present system consists in the mode of supplying the necessary medicines. The "chemicals" and "galenicals" being included in the contract of the medical officer, he is always liable to the suspicion, and is seldom free from the imputation, of a very parsimonious employment of expensive medicines. Those who are most generous and conscientious are sometimes involved in this general suspicion, and there are really no means of meeting such a charge. The notoriously low salaries of the medical men create the general suspicion that justice is not done to the poor. This is not as it should be; but it will ever be quite impossible to produce public or even pauper confidence, while this pernicious system is suffered to continue. I am well aware the medical profession in general do not shrink from necessary expenses attending the care of their pauper patients; and that, in the long run, it is much to their personal interests to expedite recovery by all the means in their power, inasmuch as their attentions then cease. I am well aware, too, that the union surgeons are not a whit behind the other members of our body in devotion to their duties, even where the remuneration is grossly inadequate. By day and by night, in fair weather and in foul, in scattered villages and in crowded dwellings, amidst sickness and privation, and in the poisonous effluvia of fever and of death, they form the great horse and foot patrol of public charity throughout the land. They who risk their lives in unwearied exertions in the chambers of pestilence are not likely to withhold even expensive medicines (if actually within their reach), while they prove by their martyr-deaths, that life itself is not a sacrifice too great for them to make in the cause of benevolence and in the amelioration of human misery. In cases, however, in which the medical officer has neither private property nor private practice to enable him to secure an adequate supply of the proper medicines, I do not see how it is possible for him to do the paupers justice, or to perform his contract with any degree of liberality. In order, then, to ensure the confidence of the pauper and the public, I contend that the medical man's prescriptions, in all questionable cases, should be open to the inspection of a competent medical board; and that he should be as free from personal expense in ordering physic, as he is in ordering mutton and wine. His visits to the sick will be then the safe criterion by which the boards of guardians may satisfy themselves that he has been diligent in the performance of his duties. To put this question in a proper light, only suppose relieving officers were paid by contract an annual sum, out of which the indefinite and required quantities of articles of food were to be supplied to the pauper—would the relieving officers even be able to satisfy the exigences of the pauper, or the charitable munificence of "Ladies Bountiful" in the alms which do not come out of their own pockets?

If our army surgeons contracted for the medicines they require in their regiments, or our naval surgeons supplied "chemicals and galenicals" out of their fixed salaries, we should soon hear of grumblings and mutinies.

Even the "per-case" system would not mend matters; and mutual suspicion, dissatisfaction, and distrust would arise among the officers and men. Would the "Admiralty" or the "Commander-in-Chief" be tolerated in saying to the medical officers of their departments, "You made the contract—it was at your option to take or refuse it"? Yet such is the exact position of the medical officers of the unions, and such is the language which the authorities have used. The parish doctor has never yet had fair play. Under the old law the contract system was too general to ensure confidence and respect; and this, one of the worst features of the old law, has been retained in the new, and made the basis of medical relief, under what they call "the Poor-law Amendment Act." Society will never and ought never to be satisfied while such an arrangement is suffered to exist. I will boldly assert, that if any hospital or dispensary in the kingdom were managed in a similar way, it would soon fall into disrepute and suspicion. If the governors of these institutions adopted the plan, and obliged their medical staff to contract for the supply of drugs, I doubt whether the surgical talents of a Lawrence would protect him from the suspicion of parsimony, in such matters as leeches, quinine, and sarsaparilla. Now, we ought to meet this evil, so destructive of mutual confidence, in a fair and honest way; and, if the state really pretends to the medical care of the pauper, it ought certainly, without any subterfuge, to find the physic.

I would propose, then, that an adequate dispensary and a qualified dispenser be attached to each union, to supply the medicines prescribed by the medical staff. The advantages of such an arrangement are obvious. The quality and quantity of the drugs would no longer be dependent on the liberality or parsimony, or even the pecuniary ability, of the party prescribing. There would be no motive for the medical man to order the least efficient medicines because the cheapest; and there would be a check upon extravagant expenditure in the superintendence of the central medical board.

Of course, for cases of immediate emergency, the medical officer could carry in his pocket-case (as he now does) a few suitable medicines; but there would be no hurry, neglect, or forgetfulness, in dispensing when he returns from his daily rounds, which must sometimes unavoidably occur where no assistant is kept. Now, the expense of these dispensaries is the only objection that can be raised against them. Do the governors of our hospitals or infirmaries hesitate on the paltry ground of expense? No, Sir George, they are plain men, and "do justice" while they "love mercy." If they take in poor persons for the treatment of disease, they do not contract with the cheapest doctor to cure them. They employ men of skill, and willingly pay for the medicines they deem necessary.

I will not occupy your time by entering into the statistics of the expense, as less than the fee simple of one of our nobility would suffice, and would purchase at an easy rate the confidence of the public and the poor.

I am sure the salaries and allowance of the union surgeon are not magnificent enough to be touched by the alteration; but, as Government already pays one-half of the medical expenses of the unions, it has the right, as well as the power, to enforce the arrangement through an order of the poor-law commissioners. Let them combine union dispensaries with a central medical board, of which the new sanitary board might be part and parcel, and the poor-law medical relief will be finally settled on a sound basis. The position of the medical officers would be honourably improved, and the sick poor, which no Malthusian system has been able to abolish or extinguish, will be efficiently and promptly relieved on terms of mutual respect and confidence; and, where restoration is practicable, the sick pauper will have a better prospect of being restored to the position of the able-bodied labourer—a class to whom the state is under the deepest and most permanent obligations,

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as the source of individual wealth and the sinews of national greatness.

I have the honour to subscribe myself, Sir George, with much respect for your talents and character, as well as your high position,

Your most obedient humble servant,

EDWARD THOS. SPOONER, M.R.C.S. and L.A.H.,

Member of the Council of the National Institute of Medicine and Surgery, and Member of the Council of the Provincial Medical and Surgical Association.

POOR-LAW MEDICAL REMUNERATION.

[To the Editor of the Medical Times.]

SIR,—As medical officer of a union, I beg to tender my best thanks for your spirited and untiring advocacy of our cause. The movement now begun is the first in the right direction, for it was utterly hopeless to expect justice at the hands of the boards of guardians; indeed, too many of the guardians are unable to appreciate the claims of the profession; they are too much like railroad directors, whose hearts are in their pockets, though I am glad to say there are some noble exceptions.

It seems to me, our complaint is less against the "extras" than against the general stipend. It is the sick poor, who are everlastingly applying for advice and physic, that so heavily tax our time and purses, and render our duties so onerous. And as these poor creatures who are the subjects of our care—in their squalid poverty, always bordering on destitution—must be "reported" before they can obtain relief, they are constantly applying for the most trivial ailments, and are often tempted, by an exaggeration of their wants, to cheat the surgeon; and I have more than once been chastised by the guardian for reporting cases undeserving, as he thought, of parochial aid.

Again, the "status" of a union doctor is proverbially low; he is exposed to a thousand detractions; his office seems to have begotten in the public mind a foregone conclusion adverse to him; and whether it is from a notion of moral or educational inferiority, or an instinctive sense of his being badly paid—and, therefore, lacking the requisite motive for the full discharge of duty—the public appear to think he cannot, or will not, do the poor justice. And see how very naturally this feeling arises. Those benevolent individuals in a parish who, from the best of motives, make it their business to watch their indigent neighbour, compare the poor man's case with their own, and, from the disproportionate amount of attention given, arrive at a conviction disparaging to the union surgeon. They argue thus:—"I was ill with fever, and Mr. So-and-so attended me twice a day, administering pills and draughts; this poor man has the same disease, and the parish doctor sees him only once a day, and not always that, giving him only powders. *Ergo*, the parish doctor is guilty of gross neglect." Now, the fact is, the union barely pays for the medicines and journeys *really* necessary, and these the officer gives; while in the other case the medical man bestows an amount of attention, and doses, not in proportion to the real emergencies of the patient, but rather regulated by all that needless alarm with which the disease becomes invested by patient and friends. The union niggardly pays for what is absolutely necessary; the rich, in addition, pay for fears and fancies. This evil would be very much remedied by better remuneration—a payment equivalent to our services would enable us to show the paupers more attention, annihilate the union "caste," and give the appointment a more respectable standing.

This subject, with another closely identified with our "case," is well stated in the *Spectator* of the 23rd ult.:—"Nothing," says the writer, "can be more irksome and disagreeable than attendance on those classes of society most debased by ignorance, vice, and poverty, when further lowered by the prostration of sickness; yet, for that most thankless part of his duties, the medical officer is so ill paid that the post is scarcely an 'object' with him. By the system of tender the lowest amount that a respectable medical man will take is accurately ascertained; and thus you get 'cheap' physic for paupers. But the medical man owes no allegiance to the board of guardians; he is often hostile to them; he always retains a grudging sense that he is underpaid; a very troublesome case, or an unusual number of cases, is a virtual encroachment on his bargain. Paupers are commonly a nasty and unmanageable class of patients; in short, the medical officer is chronically in a state of mind which prompts a man to throw up his situation—he is aggrieved, unwilling, and careless. Added to all this, he is at times harassed by stupid objections from guardians quite ignorant of what he ought to do; he is under no superintendence from any professional superior. We have here almost all the elements of irresponsibility."

These remarks at first sight may seem beside the question, but they bear upon our position, and the well-being of the poor. I believe they go to the root of the evil, and may lay bare those under-currents of thought and feeling which have full vent in private, but in public are indistinctly enunciated. And I like them the better for not sparing the medical practitioner. It is an admitted fact, that the tendency of the present state of things is to render him "careless," and open to censure. It is here, as everywhere else, you can command efficient services in the long run, only by adequately paying for them.

But I write rather to introduce the accompanying document. It is couched in general terms, leaving the detail with the constituted committee. My own feeling is, that all "extras" should be obliterated, and that one payment should embrace our entire duty. These "extras," when they happen to be unusually bulky, occasion the guardians some uneasiness, and expose the surgeon to suspicion.

The committee will doubtless seek all the *data* they can procure in order to establish our claim. For myself, I may add—I have eight parishes in the Loddon and Clavering Union, including a population of 3766; that I have attended during the past year (1846) at least 370 cases, and been paid forty guineas a year, exclusive of extras. This is at the rate of 2s. 3d. per case, and some of the patients living six miles from my residence. The extras I am paid for according to the scale of fees put forth by the poor-law commissioners.

I have the honour to be, Sir, your most obedient servant,

N. B. FISHER.

Bungay, Nov. 15.

P.S. I have just had an interview with a medical man, of thirty years' experience in union practice, and he strongly advocates the abolition of "extras." He has attended a workhouse during a greater part of the time, and has therefore had a good opportunity of meeting with the guardians at their weekly boards; and when a medical officer has happened to report two or three fractures at the same time, he has frequently heard the insinuation thrown out—"I doubt these doctors report hurts for broken bones." And, in truth, with an abiding sense of an inadequate stipend, *it is* a temptation to distort a severe bruise into a fracture, for which a fee is paid. I write honestly, for the committee should know the whole truth. I have likewise the welfare of the profession at heart.

Bungay, Nov. 8, 1847.

We, the undersigned, medical officers of the Wangford, Loddon and Clavering, and Depwade Unions, hereby express our hearty concurrence in the object of the "Convention of Poor-law Union Surgeons," held in London on the 27th ult.; and we declare our readiness to forward, to the utmost of our ability, the design of the committee resulting therefrom.

We think the course now taken, in appealing to the Government, the only legitimate one to obtain a redress of our grievances, it being worse than useless to remonstrate with the boards of guardians, who are directly interested in continuing the present mean and inadequate stipends. And we protest against our position as union medical officers implying our satisfaction with the existing payments; we take charge of the poor because they are interspersed among our private patients, and as a matter of necessity, in order to avoid medical men being located in our midst for that purpose; and we deem it most unjust thus to take advantage of our unavoidable situation.

We think the fee for vaccination should not be less than two shillings and sixpence per case. And we loudly complain of the meagre payment for attending the ordinary cases of sickness, which is so unremunerative of the time and labour bestowed.

Chas. Garneys, Surgeon to the Depwade Union.
John Currie, Surgeon to the Wangford Union.
Charles Auslie Mills, Surgeon to the Depwade Union.
Gillett Gilbert, Surgeon to the Depwade Union.
Frederick Robert Rose, Surgeon to the Depwade Union (Diss District).
William Peskett, jun., Surgeon to the Wangford and Loddon and Clavering Unions.
Heynes Hardwicke, Surgeon to the Depwade Union.
Horace Howard, Surgeon to the Depwade Union.
George Rodwell, Surgeon to the Loddon and Clavering Union.
N. Biggs Fisher, Surgeon to the Loddon and Clavering Union.

MEDICAL ASSISTANTS.

[To the Editor of the Medical Times.]

SIR,—We claim the right of reply to a communication signed "Limericensis," and published in your journal of the 5th instant.

Two charges are brought against us—first, that we have taken an assistant from behind a druggist's counter to initiate him into the mysteries of the medical profession. Our reply is, that the charge is untrue, as the gentleman in whose employ our assistant was last engaged would willingly testify. That gentleman is Mr. Hooper, of Rotherham, both a member of the Royal College of Surgeons and a licentiate of the Apothecaries' Company. The second accusation is, that our object in securing the services of our present assistant was to save ourselves the payment of a just and liberal salary. To this we answer, that we were unconscious of having any such motive; and, instead of paying less per annum than is customary with our medical brethren, we have found upon inquiry that the salary given by us exceeds the usual sum. What may be the comparative rate of remuneration to surgeons' and druggists' assistants in the Sister Isle we know not, but "Limericensis" should have been aware that in England (to the shame of our profession be it told) an assistant to a chemist and druggist generally receives a higher salary than is paid to one employed by a general practitioner.

We should have treated the communication to which we have now replied with the silent contempt it deserved, had we not felt grieved to see the pages of the *Medical Times* made the vehicle of a personal, splenetic, and calumnious attack. We are sorry that a journal which in many respects has presented so bright a contrast to a rival publication should (inadvertently, we hope) resemble it in one of its worst features—that of disseminating falsehood and abuse. The medical press has higher duties to discharge, of which fact, we trust, Sir, you are fully sensible, as are also

Your obedient servants,

MESSRS. THEXTON AND JACKSON.

Church-street, Barnsley, Nov. 15.

A GENTLE HINT TO POOR-LAW MEDICAL OFFICERS.

[To the Editor of the Medical Times.]

SIR,—Nothing is more surprising, in the present aspect of the great battle waged by the working-classes of our profession against their oppressors, than the apathy (as far as deeds are concerned) of the oppressed. We have had letters without number, containing groans, sighs, and lamentations of all kinds, and statistics of all varieties; there has been a great outpouring of grievances, but only a very small one of the coin of the realm.

Our cause is holy and just, but, without the sinews of war, must fail; our attack on ignorance and avarice must be repulsed from want of ammunition. However energetic our committee may be—however willing to do all that, as honourable men filling a sacred trust, they can do, such unpoetical items as printing, advertisements, postage, circulars, fees to parliamentary officials, &c., must be defrayed; and, therefore, bitter was my chagrin on reading the meagre list of donors to our fund. Your powerful pen reaches far and wide, and will in time encourage our brethren, so quietly considering the matter, and so quietly awaiting the course of events from which they hope to benefit. Let them consider well, but decide quickly. In merely a commercial and speculative sense, without regarding justice and honour to the poor and themselves, even in this age of ten per cent., "they will find no better investment for their money." At present every union surgeon in the rural districts gets on the average say £40 per annum for every 2000 paupers. When justice is done, and his remuneration fairly arbitrated, he should get for the same duty £100 or £150—an increase of at least £100. Thus, supposing every medical officer holding a salary of £40 under the present *regime* to subscribe 10s. for carrying out our most justifiable agitation, he will receive for his 10s. capital invested in so sure an undertaking £100 per

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annum profit, or, in other words, an interest of "four thousand per cent. per annum (as long as his faculties and good conduct remain) on his contribution of 10s." And then comes his own inward satisfaction at his increased efficiency to his poor fellowmen; his augmented respectability; his *status* elevated in public estimation; and, though last, not least, the firmer confidence of the paupers in his attention and skill. All these advantages will follow as surely as morning follows night; and they ought to follow, for who conveys the blessings of our art to the very extremities of Great Britain and Ireland, to the penetration of foul rookeries, courts, and alleys, to the centre of quaking bogs and swampy turnip-fields—nay, to the very bowels of the earth—so much as the union surgeon, to whom millions of the industrious—the thews and muscles of our country—the "raw material" of our invincible army and navy, look for aid in their hour of need; his dwelling-place, the home of his little ones, contains at once the alarum of the first approach of disease and death, and the last resting-place of hope for the afflicted one. And yet he is only the "parish doctor," whom every one may harass, scorn, and snub at pleasure, and through whose exhausted frame the Lady Bountiful, and others equally liberal, may be cheaply generous. But a truce to whining complaint: let us all "put our shoulders to the wheel, and get out of the mire as quick as we can;" let every union surgeon send his 10s. to our fund, and leave our cause safe in the hands of our disinterested and superlative committee; and then we shall, in truth, be surgeons of a union—united to protect, not combined to injure.

Wishing success to your brilliant achievements on our behalf, and thanking you most cordially,

I am, Sir, your obedient servant,

FREDERICK BEVERLEY DIXON, M.R.C.S., &c.

St. Giles-street, Norwich, Nov. 13.

POOR-LAW MEDICAL RELIEF.

[To the Editor of the Medical Times.]

SIR,—I have read with much pleasure in your journal that the general medical practitioner has at length awoke from sleep, and appears determined to make known the wrongs and injury done, both to himself and the poor, from the scanty and miserable pittance allowed by the guardians of the various unions in this professedly Christian land for the arduous duties performed in his endeavours to ameliorate their physical sufferings; and I fear this state of things has been permitted to go on from a fear of complaining to the powers that be. However, it is proper there should be a limit to all injustice, and I am not very sanguine the question will be fairly discussed unless it be made a public one; and I would humbly suggest, after the committee have digested their plans, that a public meeting should be called, and all parties invited to speak out boldly on the subject. For my own part, I have very little hope of justice being done, either to the practitioner or the poor, until the public voice proclaims the injustice and iniquity of the present system. Were we destitute of means in the country to provide for the destitute, and to pay the labourer for his work, the case might admit of some excuse—but no such thing; and in my opinion it arises from a disgraceful parsimony, and only requires the condemnation of numbers to ring its death-knell.

Having had some experience in affairs connected with the administration of the poor-laws, perhaps I may be permitted to state that, in my opinion, the medical officer of a union should be confined entirely to the duties of attending to the sick poor, receiving, of course, an adequate and suitable remuneration for his services, and making the union-house the centre of his operations as much as possible. Can any living man in this civilized land contend for one moment that the poor are not entitled to this provision and consideration at the hands of those whom the law makes their guardians! Look at the word, and then let us ask ourselves what it means.

Again, I would ask how does it happen that the medical officer is the worst paid of all the union staff? Is it because his duties are light and pleasant? We all know to the contrary. We also know he is ready with his knowledge and assistance by day and by night. Therefore, why should he go unrewarded for his toil and anxiety? I am sure Englishmen are too generous to permit it; we may be unthinking occasionally, but we are not naturally unjust.

Look at the mental toil necessary to qualify a man for the arduous and responsible duties of a medical adviser, and surely no one will contend the same amount of intelligence is not as necessary for the poor as the rich; we are all, I conceive, composed of flesh and blood.

There is another point I would advert to, and I am done. I believe there is a prejudice in polite society against the medical adviser of the poor—for why I know not, but so it is; and this in my opinion furnishes another reason why his services should be confined as much as possible to the poor and humble of the earth.

Apologizing for the length of my epistle, and with every desire for the success of the movement,

Yours obediently,

W. S. MASTERMAN.

Wine-office-court, Fleet-street, Nov. 9.

OBSERVATIONS ON VARIOUS DISEASES.

[To the Editor of the Medical Times.]

DEAR SIR,—Allow me to state, that during a long period I have had the pleasure to receive in this distant region, *vid* Panama, the *Medical Times*, with a punctuality equal to that of a mail in Britain. That such a mass of interesting and useful information as is presented in each number of your much-esteemed periodical can be obtained here for less than sixpence, together with its rapid and regular conveyance, is no little wonder, even in this wondrous age. Your columns are always so well occupied that I think it would be ungracious were I from this "Patmos" to transmit cases for publication; only I would notice that while perusing the very able work on "Clinical Medicine," by Dr. Graves, of Dublin, I was struck with (as seems to me) the truthfulness and importance of that distinguished physician's remarks on Professor Liebig's "Theory on Animal Heat;" and, judging from my own experience and observations in tropical countries on both sides of the continent of South America, since 1826, I am convinced that, for the maintenance of health in man, even in the warmer regions of Brasil and Peru, that good animal food, in moderate quantity, is necessary, and that it is as much relished by those who obtain it as in more temperate climes. We know that in some of the hotter regions of the earth, that not only the carnivorous animals subsist on flesh, but also various tribes of the human species, in Africa, &c., and the Gouchas on the burning plains of South America, who, at times, live during months on beef and water only, remaining robust and healthy. It is a notable fact, that on the Andes, on the elevated land, extending throughout several thousand miles of latitude, there are myriads of quadrupeds living in regions where, during night, the temperature is below freezing, and that there nature (a) has provided only meagre vegetable food for all those creatures, who thrive on it better than when they are removed to more genial climes.

The observations of Dr. Graves on the occasional appearance of scarlatina and influenza, as widespread epidemics, are important, and worthy of our notice. We remember the destructive visitation of influenza in Britain in 1837, and we have seen both of those maladies in their worst forms on the west coast of South America. Early in 1832, scarlatina maligna appeared in Chili, and continued several months; during which time dreadful havoc among the people ensued. An eminent physician, then in Sontiago, informed me, that during the three first months after the appearance of the pestilence in that city, above 3000 deaths occurred out of a population of about 60,000 souls. The same gentleman, (Dr. Armstrong) also stated, that from the first the disease was decidedly typhoid, and that the stimulating method of practice with gargles of aji, *i. e.*, chili-pepper, and bark, wine, &c., was very successful; while those patients who were treated by depletion died in great numbers. My own experience of scarlatina maligna, as seen in Peru, accords as to its treatment with that above noted; but I have not witnessed here any epidemic which in severity approximated the one in Chili in 1832.

Both scarlatina and influenza, or "la peste," as the latter is here called, appear at times epidemically in Peru; and in 1827, I saw in this city a comparatively slight visitation of epidemic catarrh, but influenza has on some occasions swept over these vast regions with terrible results.

The most destructive visitation within the last century was that of 1759. It appeared first in the south of the Vice Royalty of Buenos Ayres, gradually advancing northward towards the Equator; but, in consequence of the great extent of country between where it first appeared and the Line, and the tardy conveyance of intelligence at that period, the epidemic had reached Potosi and Chuquisaca before the people in Quito heard of the approaching calamity, and by the end of July it was at Guancavalica. After leaving the plains of Buenos Ayres, it moved from place to place, from south to north, along both Upper and Lower Peru, visiting in its course hamlets, villages, and towns—such as Potosi, Chuquisaca, Oruro, La Paz, Chubito, Guamango, Guancavalica, Xanga, Lima, &c., and from thence it proceeded northward, both along the coast and the table-land, to Quito and the provinces of Central America.

The Indians died in great numbers, especially those who were addicted to the abuse of intoxicating liquors; such persons when attacked by the malady were soon cut off—very few recovered; when that was observed, the sale and use of strong liquors were prohibited, and the result was that, though the epidemic continued, deaths were not so numerous. Its progress was rapid, and its operation so general, that, had the symptoms been equally malignant in every case, few could have survived the visitation; for, within a few days after its appearance in a place, almost every one, both young and old, was affected. The streets and markets were deserted, and the houses solitary; the inmates being unable to help either themselves or one another; but, fortunately, those persons who previously had been in good health and of temperate habits, and who survived, were only two or three days under the more severe symptoms, and were soon able to give assistance to others. The disease began with vertigo, and a feeling of weight in the head; all the senses were weakened, and severe pain was felt all over the body. Fever, but not violent, with general lassitude and discharges of blood from the mouth and nostrils—deafness, lowness of spirits, and total loss of appetite were experienced. Persons who were suffering from syphillis or chronic ailments, especially thoracic affections, were soon cut off. Many of those who had been in good health recovered under the use of sudorifics and remaining covered up.

Those who passed the more severe stages of the epidemic were in general about a month in a state of convalescence, during which they suffered from prostration of strength, perturbed vision, and melancholy. It was observed that dogs were affected with the epidemic, but it appeared to be be more benign in such cases than in the human subject; though many dogs were seen lying in the streets unable to stand, and numbers of them dead.

When the disease reached a place it spread with great rapidity among the population, so that, after about a month, it disappeared from any locality.

In those districts which it first visited deaths were much more numerous in proportion than subsequently; either from the epidemic being more severe, or a result of bad treatment. It was observed that the abstraction of blood appeared to be injurious, which was the mode of practice at first adopted, but afterwards abandoned for that above noted. (a)

M. HAMILTON, M.D., &c.

City of Tacna, South Peru, Sept. 3, 1847.

(a) "Edinburgh New Philosophical Journal," April 1843, p. 286.

THE NON-RESTRAINT SYSTEM IN LUNATIC ASYLUMS.

[To the Editor of the Medical Times.]

SIR,—As the Commissioners in Lunacy are now investigating the circumstances detailed in the report of the inquest held at the Lincoln Asylum on the body of John Cottingham, who was found after death to have five ribs broken, it is not my intention to make any remarks on that unfortunate case, but to call the attention of your readers to the case of a man named Dixon, as it bears directly on the "non-restraint" system as now carried out in the Institution.

In June last, to prevent Dixon in a paroxysm of violent mania doing harm to himself or others, he was forcibly held down by *four keepers for two hours*, when he became completely exhausted from resisting their efforts to restrain him. He was then placed in one of the infirmaries, and, on examining him, two or three of his ribs were discovered to be broken; the skin excoriated from the lower part of his back, and a quantity of blood effused beneath the cellular

(a) *Vide* "Noticias Americanas," page 164. Madrid, 1792.

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substance; and that he was covered with bruises from head to foot. Owing to the injuries he received from such brutal treatment, he had partial locked-jaw for several days, and it was with great difficulty that he could feed himself. In fact, had he been beaten with clubs, or had he contended against a prize-fighter for two hours, he could not have been more dreadfully mauled than he was.

Shortly after this case occurred, I alluded to it in a letter which I addressed to one of the local papers, and I maintained that if Dixon had been placed in seclusion his excitement would have subsided, and the serious injuries he received from such unwarrantable *personal* restraint (a thousand times worse than any *mechanical* restraint to which he could have been subjected) would have been prevented. In confirmation of what I then stated and now repeat, I find, from the Fifty-first Report of the Friends' Retreat at York, that, "During the absence of the medical superintendent, mechanical personal restraint was in one case temporarily resorted to. The necessities of this case were fully met by secluding the patient in a room, the walls of which are covered with padding." But, strange to tell, Dixon himself, before he was discharged from the asylum, told the board, at one of their weekly meetings, that had he been put in a room by himself his furious excitement would have subsided, and the injuries he received from his keepers would have been prevented. The board made no minute of his declaration; nor have the governors yet provided proper seclusion-rooms for dangerous patients. But what is still stranger, as it shows the extremes to which some men will go rather than acknowledge an error, Dr. Charlesworth, the senior physician to the institution, has said, in reference to this case, that, if four keepers were not sufficient to restrain a patient in a maniacal state of excitement, he would send out for twenty men to assist them, rather than temporary seclusion should be permitted as a moral means of restraint in the asylum! Dr. Charlesworth certainly regards himself an irresponsible member of society, and the governors must look upon themselves in the same light, otherwise, one would think that the case of Dixon, and the cases of others which might be mentioned, would be quite sufficient to condemn the moral treatment of insanity at Lincoln. Dixon's is not a solitary case by any means; but dead men do not tell tales, and walls have not tongues. But the question may be asked, What motives can Dr. Charlesworth and the governors have in continuing *their* present system of "non-restraint," which is so manifestly injurious to some of the patients? When Dr. Charlesworth first set sail in the "total-abolition" barque, he classified his passengers, his craft was well manned with attendants, and seclusion was his rudder, by means of which he kept his course midst a stormy sea; but in an evil hour he abandoned his helm, and since then his vessel has been unmanageable, and nothing but disasters have befallen it; and now, rather than resume the pilotage, he prefers shipwreck. As to the governors, they have been so prejudiced in his favour for a number of years—they have been led by him to believe that their asylum is the best-conducted one in the kingdom, and that no one knows how to treat insanity but himself—that in spite of public feeling, and in defiance of the opinion of the medical profession, they will not allow the scales which obscure their mental vision to fall from their eyes unless they can dispose of them as a marketable commodity. No, no; none but the managers of the *nonpareil* establishment know anything of the nature and treatment of insanity; and, if any one has the hardihood to doubt my word, I refer him to the last Report of the Commissioners in Lunacy to the Lord Chancellor.

To the systems of non-mechanical restraint and non-seclusion, the system of non-classification has lately been introduced at the asylum, which has been attended with evils too obvious to mention, and which, if persisted in, will give rise to some dreadful occurrence. I will explain myself.

There are about 130 patients in the asylum, divisible into three classes of private patients, besides pauper lunatics; the latter greatly preponderating in number. The male and the female patients are nearly equally divided, and they occupy distinct parts of the building and grounds. The only classification of the patients that can be said to prevail in doors, is, that which is determined by their respective payments. There is no out-door classification whatever, as the disorderly courts have been thrown into the front airing-grounds by the removal of the partition-walls, and the patients allowed thereby to associate together. Yes; at Lincoln Asylum ladies and gentlemen are compelled to associate with pauper lunatics; and the orderly, the convalescent, the furiously maniacal, the idiotic, the epileptic, and the dirty patients are mixed together in the two airing-grounds; and, yet wonderful to relate, the governors would try to make the public and the profession believe that such an unheard-of assemblage has its advantages over the system of classification in other asylums! I will not condescend to prove the contrary; but by way of anticipating the future, fancy a furious maniac with a homicidal tendency admitted into the asylum;(a) and fancy him possessing himself of some dangerous weapon; and fancy him assaulting the patients with it; and fancy the dreadful scuffle that would ensue between him and his keepers, with the accompaniments of bruises, excoriations, and broken ribs, before he was overpowered: and you have but imagined what may happen at any time in an institution where there is no classification of the patients, no mechanical restraint or temporary seclusion, permitted; but where all is left to the Argus eyes of the medical superintendent, and the forbearance or brutality of the attendants. As it is, black eyes, kicks, bruises, and scratches are the consequences of the disorderly patients assaulting the others; and, occasionally, the list of accidents is varied with a broken rib or a collar-bone.

I am firmly convinced that the "non-restraint" system cannot safely be carried out in any asylum, without a judicious classification of the patients, and the provision of proper seclusion-rooms; and, with these adjuncts, I can, from my limited experience, readily imagine cases in which *mild* mechanical restraint would be had recourse to with advantage.

The governors of the Lincoln Asylum have erred in introducing the "non-restraint" system as a general rule of practice; they have erred in prohibiting seclusion; and they have most grievously committed themselves in abolishing all classification of the patients. The governors of other institutions have been right in not adopting the "total-abolition" plan, and in making "restraint" the exception to a general rule, which required to be tested by lengthened experience before it could be pronounced to be of universal application. Nevertheless, the introduction of the "non-restraint" system has led to the disuse of a great amount of instrumental restraint that was formerly had recourse to in most of our asylums; but ultimately it will not prevail, and "restraint" will be the exception to the rule. In some of our best-conducted establishments this system has long been acted upon; and, as I find it clearly set forth in the Seventeenth Report of the Belfast District Asylum, I cannot do better than conclude my letter with the following quotation under the head "Restraint—Seclusion":—"Mild mechanical means, or seclusion in a separate apartment, for restraining the refractory or destructive, continue to be employed as circumstances or urgency may demand; and this, it should be specially held in view, not at all as a punishment, as some, who are imperfectly informed on such a subject, might suppose, but simply and purely on the grounds of humanity and kindness towards this class of patients; and who are thus controlled with much less irritation and degradation to themselves, it is honestly conceived, than by the immediate presence of attendants, well trained and humane as they may be, and unlikely to have recourse to muscular exertion, to reduce to submission, when instrumental assistance is strictly forbidden by their superiors. The cases, however, requiring the application of temporary physical restraint, or short periods of seclusion, throughout the year, were comparatively few; which, indeed, is nothing new in this asylum, as not merely the 'total-abolition' plan, as it is called, but a *bonâ fide* personal liberty, generally, to its inmates, as far as is compatible with safety and discipline, has been the rule, and 'restraint' the exception, since the first day of its opening."

Sir, I have the honour to remain, your obedient servant,

JOHN NICHOLSON, M.D.
Late Junior Physician to the Lincoln Lunatic Asylum.

Lincoln, Nov. 11.

(a) The patient Dixon had a homicidal tendency; the medical superintendent dare not approach him alone; and two keepers were obliged either to be by his side or to have their eyes constantly upon him.

MR. BRAID AND DR. ELLIOTSON.

[To the Editor of the Medical Times.]

SIR,—Will you be so obliging as to insert the following remarks in the *Medical Times*, out of compassion to Dr. Elliotson and his querulous friends?

In the "Zoist" for July last a paragraph appeared under the following remarkable heading:—"Mr. Wakley's desire that Mr. Braid should utter an untruth." The facts are these. Mr. Wakley, in his *Lancet* of the 21st of last November, states that Mr. Braid, a medical practitioner of Manchester, has said that, when lately in London, he called on a physician, who offered to show him the power of magnets in producing catalepsy during mesmeric sleep; and the application was followed by the expected result. Mr. Braid, in the hearing of the patient, then remarked that he had in his pocket an instrument quite as powerful, only that if he closed the patient's hand upon it the hand would open and the instrument drop. He touched the patient with it, and the expected result followed. He spoke of other properties which it had; and on trial all results ensued as he foretold. The instrument was only Mr. Braid's portmanteau key and ring. Mr. Wakley asks, "Why did not the writer at once name Dr. Elliotson?" We have Dr. Elliotson's authority for saying that, if the writer had, he would have been guilty of falsehood; and that he never saw Mr. Braid during that person's visit to London (on that occasion). Mr. Wakley adds, "that the prototype of the key was a bit of lead substituted by himself for nickel, in an experiment upon Elizabeth Okey. As soon as Mr. Braid saw Mr. Wakley's attempt to make people believe he meant Dr. Elliotson, it was his duty to set the matter right."

Again, the editor of the "Zoist" resumes the subject in the subsequent number, thus:—"Mr Braid and the *Lancet*. 'Justice' is informed that we, like himself, are not aware that this practitioner has yet denied the false insinuation of the *Lancet*, referred to at page 207 of our last number. If he has not, and has seen that insinuation, his conduct is very bad; if he has denied it, we shall be happy to extract his denial from any publication in which it may have appeared."

Now, in reply to these grave charges, I at once admit that I read the article referred to the very day it was published in the *Lancet*; but, so stolid was I, that the idea never occurred to my mind that, in perusing the said remarks, Mr. Wakley had either the desire or expectation that I should "utter an untruth." I merely thought that he supposed himself uttering a shrewd guess. In this guess, however, Mr. Wakley proved himself erroneous (as many other alleged clairvoyant individuals have done, even during the mesmeric state); for most assuredly Dr. Elliotson was not the physician and "my worthy friend" to whom I referred. I did not see, however, that I was under any special obligation "to set the matter right," by correcting Mr. Wakley's erroneous guess. I considered, and still do consider, that it was the "duty" of Dr. Elliotson, or some of his personal friends, to have "set the matter right," if they deemed the grave imputation of sufficient importance to demand a refutation. I am quite at a loss to conceive how Dr. Elliotson or any of his friends, and of all others the editor of the "Zoist," should expect I ought to have volunteered myself as the champion of Dr. Elliotson in this matter, seeing his conduct in grossly and perseveringly misrepresenting me and my views of hypnotism, both publicly and privately, orally and in print, had rendered it requisite for me to publish several papers in self-defence, in which I convicted him and other mesmerists of having mismanaged my processes, and then wishing to hold me responsible for the results of their own blunders. Not only so, but after I had done this, did Dr. Elliotson admit the justice of my charge, and desist from further aggression? or did he attempt to refute my arguments in a straightforward and philosophical and candid manner, as becomes an honourable controversialist? No; but, on the contrary, in the very next number of the "Zoist" he resumed the subject, according to the old dodge, of "we saw at pages" so and so, and then repeated the same charges as in the former number, without the slightest allusion to my criticism and clear and ample refutation of his erroneous charges and misrepresentations. Not only so, but he even appealed to what he had formerly written as proof, forsooth, of the gross misrepresentations he was about once more to perpetrate—as if falsehood could be converted into truth merely by being twice repeated.

Some of your readers may naturally ask why Dr. Elliotson should have acted in such an extraordinary and disingenuous manner by me? The

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only reason I can assign for it is this—because I ventured to think, speak, and write regarding what are called the mesmeric state and mesmeric phenomena according to my own convictions, which were opposed to the extreme and mystical views which Dr. Elliotson and other mesmerists contend for. To give a single illustration of this, Dr. Elliotson was the avowed author of the review in the "Zoist" of Professor Gregory's "Abstract of Baron Von Reichenbach's Researches on Magnetism, and on some allied Sciences, including a supposed 'new Imponderable.'" The "abstract" extended to 112 pages 8vo., and so important did Dr. Elliotson consider it, that his review extended to only forty-two pages of the "Zoist" (8vo.) He designates this abstract as a "most remarkable, most original, and most important work," and entreats "every person interested in mesmerism to purchase Dr. Gregory's book." He then adds, "My own observations on mesmerism made eight years ago coincide in every point with those of the author, which are analogous. Every one of his observations I feel must be true." Dr. Elliotson thus endorses the whole of Baron Reichenbach's speculations as true; whereas I have published my remarks "On the Power of the Mind over the Body," as a refutation of the futilities of Baron Reichenbach, as furnishing any satisfactory proof of a "new imponderable, inasmuch as I have proved that the phenomena which he attributes to this alleged "new imponderable," or exoteric influence, may be produced by a continued fixity of the attention on any part of the body, so changing the physical action of the part as to lead the patient to believe as the result of some external agency what is due entirely to the power of the patient's own mind over the physical functions of his body. If this alleged "new imponderable" is a reality, and so all-powerful an agent, let me ask why we have had no more of its wonder-working powers brought before the public since my refutation was published? If a vigorous plant, and well cultivated, why so barren of fruit?

Such being the relation in which Dr. Elliotson and myself stood, I would again ask with what propriety could Dr. Elliotson and his friends look to me, as bound to volunteer myself as his champion in informing the public that Mr. Wakley guessed wrong when he alleged that Dr. Elliotson was the physician and "my worthy friend" to whom I referred when recording the adventures of my portmanteau key and ring.

And now I would like to ask who is this editor of the "Zoist," who ventures to lecture me on the subject, first telling me that it was my "duty" instantly to have contradicted Mr. Wakley's statement, and now asserts that, if I had seen the paragraph, and had not entered the lists in behalf of Dr. Elliotson, it was "very bad"? Surely this virtuous editor, who thinks I ought to have been so prompt to redress the misrepresentations of others, would be most prompt to do so in behalf of those whom he had personally thus sinned against? I can prove him to be no such virtuous personage, however, as the following facts will show:—In answer to a query from a correspondent in the "Zoist" for January, 1846, the editor gave a most erroneous account of my mode of hypnotizing Miss Collins, evidently intended as an insinuation prejudicial to hypnotism. The editor said, in reference to Miss Collins, "The Manchester plan with her was not only to strain the eyes to the utmost, but to keep them at a double internal squint." To this I wrote a very temperate reply for insertion in the subsequent number of the "Zoist." I stated that I had no doubt but Miss Collins's eyes remained in the state of double upward and inward squint during the sleep, because that is the position people's eyes naturally and generally assume, even during common sleep. I stated, moreover, that a reference to what was recorded by the patient's father, in the same number, as to my mode of hypnotizing his daughter—namely, by causing her to gaze on my lancet-case held about twelve inches from her eyes—might have convinced him that that was impossible to have happened which he had alleged—namely, strained her eyes to the utmost—for this very obvious reason, that the greatest strain upon the eyes arises from causing the patient to maintain a steady gaze at an object placed at the nearest possible distance at which it can be seen distinctly with both eyes; but here the object, having been held at the distance of twelve inches from the eyes, could only have produced a very slight strain on them, especially as her eyes closed in sleep "in a few minutes," as testified by her father, who was an eyewitness of the whole of my process with his daughter.

Your readers will naturally suppose that the virtuous editor and professor of ethics—this *censor morum*—would instantly insert my communication, and express his deep contrition for having so far misrepresented me. Quite the contrary; for my letter was not only suppressed, but the offence and misrepresentation were repeated in a still more offensive and disingenuous manner, by appealing to a garbled sentence of my book—garbled by himself—as proof that his former statement must have been correct. This was exactly a counterpart of Dr. Elliotson's mode of misrepresenting me, for he appealed to the same garbled sentence, for the like unworthy purpose of misrepresenting me, which could not have been accomplished had the text and context furnished by the paragraph in which the garbled sentence occurred, and the note appended thereto, been fairly quoted. The editor of the "Zoist," therefore, and Dr. Elliotson, if not the same individual, seem to evince a remarkable coincidence of sentiments, feelings, and actions, in reference to me. "Par nobile fratrum!" I leave it with your readers, and all honourable men, to decide to whose conduct the epithet of "very bad" is most applicable—mine for not volunteering to correct an erroneous surmise of Mr. Wakley, regarding Dr. Elliotson; or theirs, who not only refused to allow me to correct, in the most temperate manner, in their columns, their own erroneous representations of me and my views, but absolutely to sin against conviction, by repeating the same misrepresentations, after I had clearly pointed out their errors to them.

Nor ought the peculiar heading of the first paragraph of the editor of the "Zoist" to be passed over without remark. It was evidently intended to convey an insinuation to me of the most unfavourable nature and tendency as regarded Mr. Wakley. However, I was too wide awake to be imposed upon by such a transparent trick.

As I have now exonerated Dr. Elliotson from the grave charge implied by Mr. Wakley's erroneous guess, and distinctly averred that Dr. Elliotson was not the physician and "my worthy friend" to whom I referred, the editor of the "Zoist" will have an opportunity of fulfilling his promise of extracting my denial from the publication in which it has appeared; and I must condition with him, as an act of justice to myself, that he shall publish in full all that I have here written, as my justification for not having entered the lists sooner.

I remain, Sir, your most obedient servant,

JAMES BRAID.

3, St. Peter's-square, Manchester, Nov. 13.

GOSSIP OF THE WEEK.

ANOTHER CASE OF POISONING AT HACKNEY.

On Monday, Nov. 8, an adjourned inquest was held by Mr. Baker, at Hackney, on the body of Mrs. Frances Sheridan, aged seventy, alleged to have been poisoned. The deceased was the widow of a captain in the army, and had a pension of £40 a year, residing with her son William, an excise officer, and two daughters. On the first assembly of the jury the son was charged with having murdered deceased by poison, and he was taken into custody on the coroner's order.

Mr. W. Tidy, of Mare-street, said that he was first called to the deceased on the 23d ult., and found her very sick and vomiting. One of the daughters told witness that she had been taken suddenly ill, and had vomited similarly to her mother. Witness suspected that she had been taking something deleterious, and the daughter volunteered an accusation against her brother William, complaining at the same time of various acts of violence on his part towards the family.

Mr. Hakin, surgeon, said he saw deceased a few hours previously to her death, which took place on the 29th ult. He had since made a *post-mortem* examination, and found the liver unusually large, and the lungs perfectly healthy. The stomach contained about six ounces of dark fluid. The contents of the stomach were sent to Dr. Letheby for analysis. There was sufficient poison in the bowels to account for death.

By the Coroner: Irritant poison would have produced all the appearances described.

Dr. Letheby, chemical lecturer at the London Hospital, stated that he received three jars from Mr. Hakin, the smallest one containing the contents of the stomach, and the two larger ones the stomach and intestines, together with portions of the liver and lungs. He had subjected about half a pound of the liver to analysis, and was able to detect an abundance of arsenic (exhibited to the jury in a glass tube). It was more than sufficient to cause death. Had further analyzed the contents of the liver, and detected arsenic there also. Deceased had evidently for some time been suffering from arsenic, and from the detection of arsenic in the contents of the intestines he was of opinion that deceased had had a dose within forty-eight hours of her death.

The inquest was adjourned.

APOTHECARIES' HALL.—Gentlemen admitted members on the 4th and 11th of November:—Walter Thompson, William Braithwaite, William Pearce, Thomas Watson, Charles Pratt, John Braxton Hicks, Stewart Blacker Roberts, John Glendarvine Winstone, Benjamin French, and James Lardner Green.

The prizes annually awarded by the Society of Apothecaries to medical students for proficiency in Botany and Materia Medica were, on Wednesday last, presented by Edward Bean, Esq., the Master of the Society, to the successful candidates. Mr. John S. Bristowe, of St. Thomas's Hospital, received the Botanical Gold Medal; Mr. George Thomas Jones, of University College, the Botanical Silver Medal and prize books; and Mr. William Bayldon, of University College, received a Botanical prize of books; Mr. J. W. B. Steggall, of Charing-cross Hospital, received the Materia Medica Gold Medal; and Mr. Benjamin Da vies, of University College, the Materia Medica Silver Medal. The examination for the Botanical Prizes had been conducted by Mr. N. B. Ward; and the examination for the Materia Medica Prizes, by Dr. Copland.

MEDICAL APPOINTMENTS.—Surgeon: Hugh Jameson, to the Blenheim.—Assistant-Surgeons: W. C. Patrick and J. C. Ingles, to the Victory; J. C. Murray and H. Loney, to the Bittern; H. D. Scott, to the Columbine; H. Arnot, to the Scout; Arthur Adams, to the Fisgard; J. Henderson, to the Ocean; J. Muirhead, to the Fly; E. Adams, to Plymouth Hospital; R. C. Scott, to the San Josef.

On Thursday, the 28th Oct., Dr. William Budd was unanimously elected physician to the Bristol Infirmary, in the room of Dr. Riley, who has resigned.

The Ministers of Justice in Paris have addressed a circular to the Procureurs-Généraux, to prevent arsenic being used for embalming in future.

CHOLERA.—We copy the following from the *St. Petersburg Gazette* of the 22nd ult.:—"At Moscow, as we before mentioned, the first case of cholera having occurred on October 14, fifteen other cases, most of them of a fatal nature, have occurred up to our last accounts. Those who were attacked by the fatal disease belong mostly to the poorer classes, and the greater number have suffered previously of diarrhœa and intermittent fevers. These complaints suddenly changed into the real Asiatic cholera, after eating abundance of fruit and other indigestible food, or after exposure to the damp air and cold weather. Of these fifteen persons nine died; and a week previous to the period that the epidemic could be said to have broken out, a traveller from Woronesh fell sick at a tavern in the town of Superchoff, in the government of Moscow, and died in a very short time. This case, however, appeared to be entirely single, and had no consequence whatever, either in the surrounding country or the town." It is stated in a letter from Constantinople, of the 17th ult., that the news of the cholera was very satisfactory. With the exception of Trebizonde, where not more than three or four attacks per day took place, the disease had ceased its ravages on all the coasts of the Black Sea.

In an official report from St. Petersburg, dated Oct. 23, we hear that the cholera is still at Moscow. Out of 120 persons who were seized with it, 41 have died.

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Letters from Trebizonde announce that the cholera has disappeared from thence.

It is also stated that it is proceeding in two distinct directions in Russia. It is now spread over six departments. On the 30th of September it broke out at Moscow.

Dr. Bean having refused the mission relative to the cholera, Dr. Lasséque has been appointed instead.

The German papers give official *data* from the Russian capital, which inform us that in Moscow, from Sept. 30 to Oct. 19 (19 days), 222 persons were attacked by cholera, of whom 66 died. In the provincial districts of the empire the last list of deaths amounts altogether to 208.

M. Nordin, the Swedish Ambassador at St. Petersburg, has, according to the *Daylisgt Allehande*, sent information that the cholera is travelling on with such speed that it is now scarcely eighteen miles distant from St. Petersburg, and will doubtless soon appear in the capital itself. In Moscow it has assumed a comparatively mild character.

COPENHAGEN, Nov. 6.—The cholera is so generally prevalent here, that nearly all the performers at our theatre are laid up with it.

IMPORTANT TO UNLICENSED PRACTITIONERS.—On Friday, Nov. 5, an inquest was held upon the body of a man named Patrick Falkner, who died on Thursday. It appeared that the deceased, about three weeks ago, was drinking, in company with some other Irishmen, when they quarrelled, and one of them, named Edward Frenay, struck him several times, and cut his head with a stick; and Frenay's wife also assaulted him. He was much hurt, and upon being assisted home was taken ill, and erysipelas supervened. He was attended by one of the dispensary surgeons. Subsequently, a person calling himself Dr. St. Pierre (not a regularly licensed practitioner) attended the deceased, bled him, applied salt and water (hot and cold) to him, but he died. It was also stated that the doctor, upon one occasion, was not quite sober when he visited his patient. Mr. Lynch said he considered the course of treatment adopted by Mr. St. Pierre as very improper. Under all the circumstances, the coroner said he would adjourn the inquest till Monday, in order to give time for a *post-mortem* examination.

HYDROPHOBIA.—The *Journal des Débats* publishes the following letter, dated Offen, in Hungary, 15th inst., describing a melancholy case of hydrophobia:—"Some days since M. Joseph de Czernery, an octogenarian parish priest of the village of Kovachim, was bitten in the hand by a small dog which he was accustomed to keep near him in his study, and the following day the dog died raging mad. M. de Czernery immediately assembled his parishioners in the church, and told them that he felt within him the germ of the dreadful malady, which might break out at any moment, and under which he must necessarily die. He then took leave of his parishioners in the most affectionate manner, and repaired to the Hospital of the Brothers of Mercy at Offen, where he was most kindly received. The second day following, hydrophobia declared itself, and M. de Czernery expired after twenty hours of intense suffering. The entire population of Kovachim followed the mortal remains of the venerable pastor to his last resting-place." The Paris *Moniteur Parisien* states, that cases of hydrophobia had become frequent in that fashionable quarter, the Chaussée d'Antin.

OBITUARY.—Oct. 22nd, at Belfast, of fever,—M'Murray, Esq., assistant-surgeon to the General Hospital.—Nov. 6th, in Portman-street, aged 60, Powell Charles Blackett, Esq., surgeon R.N.

DEATH OF DIEFFENBACH.—We regret to announce the death of this illustrious surgeon, in the prime of his life, and in the midst of his usefulness.

We announce with great regret the death of an old friend and fellow-labourer, Dr. Nichel (of Lyons), surgeon-in-chief of La Charité. This lamented physician sunk under disease of the lungs.

MORTALITY TABLE.

For the Week ending Saturday, Nov. 13, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	1098	1046
SPECIFIED CAUSES...	1097	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	322	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	92	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	131	157
Diseases of the Lungs, and of the other Organs of Respiration	299	333
Diseases of the Heart and Blood-vessels.....	43	34
Diseases of the Stomach, Liver, and other organs of Digestion	97	74
Diseases of the Kidneys, &c.	9	9
Childbirth, Diseases of the Uterus, &c.	17	14
Rheumatism, Diseases of the Bones, Joints, &c. ...	11	7
Diseases of the Skin, Cellular Tissue, &c.	3	2
Old Age.....	46	65
Violence, Privation, Cold, and Intemperance.....	27	29

TO CORRESPONDENTS.

THE "MEDICAL TIMES" may be procured by an order on any Newsman or Bookseller, or it will be sent direct by post from the Office of the "Medical Times" to Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Pound Five Shillings IN ADVANCE, which will free them for Twelve Months. Half-yearly Subscription, 15s.; Quarterly, 7s. 6d.

"A Poor-law Surgeon," Norfolk, writes—"On the formation of the unions in this district, I represented to Sir Edward Parry, the assistant poor-law commissioner, the injustice of offering so small a sum for the services required; and I received for answer, that, although the sum then offered was certainly less than half what had been usually paid, we should not be required to attend more than a tithe part the number of paupers we had been called upon to do under the old system, and that no one would be allowed medical relief unless they were paupers, to constitute which they must have received parochial relief. This sophistry satisfied me at the time; and where used, no doubt, disappointed others, as it has done myself; and had much to do in bringing about the state of things we now have to deplore; but how did Sir Edward's project work?—need I say? Are there not scores of medical men who will bear me out when I state that, instead of diminished numbers, we are not only called upon to attend more, but have a trouble imposed upon us (unknown under the old state of things) of making a weekly return, and a quarterly register of sickness and mortality, &c. &c. (which duty alone few lawyers would perform for the sum we receive for the whole of our services); and are subjected to annoyances derogatory to an enlightened and liberal profession?"

"Beta," Bridgnorth.—The Lectures were published in the last volume of the *Medical Times*. They contain a large amount of information in reference to the nature and treatment of diseases which frequently come under the care of the general practitioner

"An Old Reformer."—We are not aware of the secret meetings referred to: if our correspondent will kindly furnish us with particulars, they shall be published. The other suggestions in his letter shall receive all due attention.

"An Honest Englishman" writes us a letter about something we cannot possibly comprehend. His ideas seem to be "confusion worse confounded." We give an extract from the communication, in the hope that some of our readers may be enabled to comprehend and explain our correspondent's meaning "Do you ever consider the state of man at all, in his wretched condition, through his own foolishness, as there is an abundance of provender for the soul? But men, the majority of them, choose their own views and practices, revelling like swine among the foolish luxuries of things until they degrade themselves sufficiently; then they begin to wonder whether they are free or responsible beings or not? after having practised their senses the wrong way of things for years, consuming valuable time, attaining foolishness, which has an existence. Parsons are just as bad or worse; they move through their profession quite technically, practising quite as much vice, or possibly more so, than laymen; crimes of higher nature incarcerating themselves into their existence: adultery, fashionmongery, pride; in fact, the spirit of the external world suits them better than anything else. What do you think of this mesmerism—what do you think it really is? Do you think he will ever succeed in victimizing his man any more than he has done, or would you not rather think that he would?"

"Inquirer" asks "If there is any society in London affording assistance to necessitous medical men, either by loan or gifts. The case," he says, "for which I make this application is one of peculiar hardness." We are not aware of the existence of any such society.

"A Sufferer from Varicose Veins."—The new elastic bandages made by Huxley and Co.

"M. R. C. S. and L. A. C." complains that he is frequently called to by gentlemen's servants during the night, by the masters' or mistresses' direction, and that, when the account is sent in at Christmas, the charge for servants is deducted by them?" There is no doubt that in the eye of the law the master, in sending for a medical gentleman to attend his sick servant, renders himself liable to pay all expenses. While, however, the law may favour the medical practitioner, it is not always good policy to seek its assistance. The members of the profession, of all others, are liable to have bad debts on their books, and too frequently, when they seek payment in courts of law from individuals who have the power to remunerate their services, the plea set up to justify dishonesty is want of skill in the medical attendant. The tale, however, has now been so often told that it fails to produce the effect intended.

"A General Practitioner, London."—The qualifications will entitle the possessor to appear for examination before the College of Physicians. The examiners have the power of proposing their questions in Latin, and of demanding from the candidate answers in the same language.

"Paul Pry" is too inquisitive: while we have the power, we have not the inclination, to satisfy his curiosity, as it would answer no good end.

"Viator."—A coloured medical man, either in the northern or southern states of America, would stand but a poor chance of obtaining any medical practice among the white population. An American lady would go into fits at the bare idea of a nigger touching her pulse.

"A Subscriber from the Beginning."—The representation had better be made at the War-office, where the matter will be taken under consideration.

"A Parent."—We should recommend King's College. A prospectus can be had on applicetion.

"Iota."—We are unable to recommend any suitable situation in the metropolis for a young man to commence practice. Would it not be better to try the army or navy, or East India Company's medical service?

"B. B., House-Surgeon, &c."—The reports were received, and they are being arranged for publication. Our correspondent is thanked for the other offers, which we will gladly accept.

"Lector, Halstead."—The work is published by Mr. Churchill, Princes-street, Leicester-square, but we are unacquainted with the price.

"Castigator."—An action for damages would certainly follow the publication of the letter.

"Mr. J. Tuneley, Wymondham, Norfolk," shall have his request attended to.

"J. B., Newington."—The complaint is frequently prevalent amongst growing persons; and if our correspondent will apply to his medical attendant he will have all needful advice given him on the subject. We do not prescribe in our columns.

"An Old Subscriber, Uttoxeter," is referred to the editor of the *Pharmaceutical Times*.

"Mr. H. Raynes, Gringley-on-the-Hill," writes, in reference to to the poor-law movement, "It is perfectly absurd to debar a pauper the opportunity of employing the nearest qualified surgeon. In my own practice, where it is not convenient to ford a river (to do so at any time is a trespass), by the most approved route to reach the limit of my district, I must cross a bridge and actually pass through a town in another's union, wherein resides other surgeons, and they within one mile of the village; in this case the pauper must send seven miles to a surgeon when he could command three others within a mile of home. Those who construcoted these districts did not contemplate having personally to administer to the poor as medical men, or having to receive medical relief as paupers, otherwise the arrangement would have been different."

Letters and communications have been received from Mr. Royston, Redditch; Mr. Pick, Newmarket; Dr. Shearman, Rotherham; Mr. Harrahan, Borrisin, Ossory; Mr. Roose, Amlucs; Dr. Long, Sligo; Mr. Santer, York; Mr. Calver, March; Mr. Oates, Lichfield; Mr. Gillard, Leeds; Dr. Mackie, Cupar; Mr. Wilson, Lockerbie; Mr. Kenyon, Hooton-Pagnel; Dr. Bredon, Portadown; Mr. Rowland, Wrexham; Dr. Letheby; a General Practitioner, London; Paul Pry; Viator; a Subscriber from the Beginning; a Parent; an Honest Englishmen; an Old Reformer; Beta, Bridgnorth; Iota; B. B., House-Surgeon, &c.; Lector, Halstead; Castigator; Mr. J. Tuneley, Wymondham, Norfolk; J. B., Newington; an Old Subscriber, Uttoxeter; Mr. H. Raynes, Gringley-on-the-Hill.

A HANDSOME PORTFOLIO for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

COVERS FOR BINDING the Numbers of the "MEDICAL TIMES" are now ready, and may be had, by order of any Bookseller, or at the Office, price 1s. 6d.

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No. 426. **SUMMARY.** Nov. 27.

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ORIGINAL LECTURES.

DUMAS ON ORGANIC CHEMISTRY.

No. XXXIII.

(Continued from p. 72.)

THE FABRICATION OF MANURES—(*continued*).

Dung, in the state in which it is procured in most countries, may be considered as an unprepared mixed manure, since, strictly speaking, all its preparation consists in placing the excrements of the animals upon a species of bed or litter, and piling these up so soon as they are sufficiently impregnated with liquid matters. Manures, as we know, are divided into hot and cold, according as they are more or less aqueous, and, consequently, as they contain a greater or less amount of nitrogen.

The name of *manure* is commonly given to the substance or straw which serves for the beds of domestic animals, and which becomes impregnated with their excrements and urine. When a mixture of this kind is left to the open air, and provided care be taken to sprinkle it from time to time with water, a very active fermentation is quickly set up. The animal matters become decomposed, at the same time furnishing gaseous products, among which we may especially remark carbonic acid and ammonia, while the straw itself, in consequence of an analogous decomposition, becomes disaggregated and gradually divided. It is in this state that manure is ordinarily applied to the ground. The liquids which have served for moistening these matters are found to hold in solution all the soluble materials of the dung, and owe their deep colour to the presence of an ulmate of ammonia. They should be collected with care, as their employment is found to be, in some cases, especially advantageous.

A circumstance very deserving of attention, is the fact that the manure, during fermentation, may determine the formation of ammonia at the expense of the nitrogen of the air and of the hydrogen of the water.

The efficacy and value of the manure then depends, not only on the nature and relative proportion of the excrements and of the straw which constitute its base, but also on the processes followed in its preparation, its preservation, and in its employment.

The manures obtained from the excrements of the herbivora are not equally efficacious. The dung of the pig is less valued than that of the cow or of the ox, and the latter again is inferior to the dry dung yielded by the horse or the sheep. Annexed are some comparative analyses, by M. Girardin, on the excrements of the cow, the horse, and the sheep:—

	Cow.	Horse.	Sheep.
Water	79·73	78·56	68·74
Organic matters soluble in water	5·34	4·34	4·10
Organic matters soluble in alcohol	2·00	2·60	2·80
Ligneous fibre	8·70	12·16	16·26
Saline matters, such as phosphates of lime and magnesia, carbonate of lime, silica, chloride of sodium, silicate of potass, &c.	4·23	2·34	8·10
	100·00	100·00	100·00

The dung of sheep or of fleecy animals is in general preferred to that of all others. By reason of their form and hardness, the excrements of the sheep mix but imperfectly with the litter, and, as they are impregnated in the stable with but a small quantity of liquid, it follows that this kind of dung ferments less readily than others. To favour the decomposition of the straw, we must dispose it in heaps, and water it frequently before making use of it. It has been calculated that the excrements, which a sheep furnishes during the night, are sufficient to manure a surface of a square metre, or even, according to M. Boussingault, one metre and a third.

By comparing, in the different species of animals, the weight of the dejections with that of the aliments, we find, according to the experiments of Block, the following proportions:—

For the ox	0·42
For the horse	0·42
For the sheep	0·40

Experience has shown, moreover, that a common-sized ox, of 400 kilogrammes (800lb.), produces annually from fifty to sixty hundred weight of dung. The horse will furnish about two-thirds of this quantity, whilst it will take from ten to fifteen sheep to produce an equal amount.

The nature of the litter which we employ must necessarily exercise a marked influence upon the qualities of the manure. In fact, the composition of the straw of leguminous plants and that of the straw of the cerealia is far from being identical; these straws differ not only in the nature and proportion of the saline substances which they contain, but also in their richness in nitrogen. Sprengel classes the different species of straws in the following order, according to their greater practical value:—

1 straw of the rape or turnip plant.
2 ,, ,, vetch.
3 ,, ,, buckwheat.
4 ,, ,, beans.
5 ,, ,, lentil.
6 ,, ,, millet.
7 ,, ,, pea.
8 ,, ,, barley.
9 ,, ,, wheat.
10 ,, ,, rye.
11 ,, ,, maize.
12 ,, ,, oats.

Annexed are the relative proportions of organic materials and of saline substances which these straws contain:—

	Organic Substances.	Solid Substances.
Straw of the rape or turnip plant	96·127	3·873
,, ,, vetch.. ..	94·899	5·101
,, ,, beans.. ..	96·879	3·121
,, ,, buckwheat ..	96·797	3·203
,, ,, lentil.. ..	96·101	3·899
,, ,, millet ..	95·145	4·855
,, ,, pea	95·029	4·971
,, ,, barley ..	94·759	5·241
,, ,, wheat ..	96·482	3·518
,, ,, rye	97·207	2·793
,, ,, maize ..	96·015	3·985
,, ,, oats	94·266	5·734

MM. Boussingault and Payen have determined the proportions of nitrogen which these straws contain. The following table gives the result of their analyses:—

	Nitrogen per cent.	Equivalent.	Manure per heet.
Straw of the pea ..	1·79	22·34	6·702
,, ,, lentil ..	1·01	39·60	11·880
,, ,, millet ..	0·78	51·28	15·384
,, ,, wheat, old	0·49	81·60	24·990
,, ,, oats ..	0·28	142·85	42·855
,, ,, wheat, new	0·24	166·66	49·998
,, ,, barley ..	0·23	173·90	52·170
,, ,, rye ..	0·17	235·29	70·587

The straws of the leguminous plants are, as we see, much richer in nitrogen than the straws of the cerealia. They also contain salts of potass in greater quantity. By putrefaction they furnish a larger proportion of ulmic acid, and disengage more ammonia then do the straws of the cereals. We should consequently employ them, in preference to the latter, in the preparation of manures.

The straw of the cereals, though poor in nitrogen and in alkaline salts, contains a large proportion of silica and of phosphate of lime.

The straw of oats is richer in potass than are the straws of other cereals; consequently, those soils which contain this alkali produce very fine oats. The magnesian soils are especially favourable to the cultivation of buckwheat, the straw of which contains a remarkable quantity of magnesia.

The manner in which the dung is preserved, from the time of its removal from the stable up to the period of its being applied to the land, exercises a great influence upon the useful effects which it is capable of producing. Our object is, in fact, by means of a carefully regulated fermentation, to aid the formation of ammoniacal salts and other stimulating principles, by preventing a part of the ammonia from becoming volatilized, in consequence of too active an evaporation. We should, therefore, select a space of proper width whereon to heap the dung, which should never rise above a certain height, for fear of the temperature not being properly maintained in the interior of the mass. To avoid the disengagement of a part of the ammonia, we should from time to time moisten the dung with the water which escapes from the stable, and which ought to be collected with care. This moistening of the manure should be performed with regularity, by means of a pump placed over the hole in which the urine is collected. Further, we may understand that it will be necessary to

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protect the manure against being washed by the rain.

Some agriculturists stratify the dung with earth, with the view of preventing too active a fermentation. It may also be mixed with turf. Experience has shown that a mixture of this kind forms an excellent manure.

Manures may be employed directly on their removal from the stable, without leaving them to ferment: they thus constitute what are called the *long* or *brittle* manures; whilst those which have been heaped up, and preserved for some time, bear the name of *short* or *rich* manures.

During fermentation, the weight and volume of the dung are reduced considerably. It has been found that 100 parts of fresh dung become reduced at the end of—

81 days	to	73·3	of the original volume, being a loss of	26·7
254 „		64·3	„ „	35·7
384 „		62·5	„ „	37·5
393 „		47·2	„ „	52·8

M. Schattenmann, of Bouxwiller, has proposed a very simple and economical means for subduing or regulating the fermentation of manures. This method consists in adding to the waters, which are to be sprinkled over the dung, some sulphate of iron, or some gypsum, the sulphuric acid of which, by combining with the ammonia to form a fixed salt, prevents the volatilization of this principle. In two or three months, we obtain by this method, provided, at the same time, we employ the precautions already indicated, a rich manure endowed with great energy.

As we have already remarked, the different manures are far from being identical in respect to their qualities or their energy. Thus, we find remarkable differences in weight between given quantities of ox-dung and of that of the horse. The following figures will enable us to judge of these variations:—

	Kilogrammes.
A cubic foot of rich ox-dung weighs ..	26
„ of fresh „ „ ..	21½
„ of rich horse-dung „ ..	17¼
„ of fresh „ „ ..	13½

The best manure, and which may be designated s the *normal* kind, is that of horned beasts, and it presents approximatively the following composition:—

	Water	75
Soluble substances.	Albumen	5
	Mucus	
	Urea	
	Bile	
	Mucilage or gum	
	Extractive and saccharine matters..	
	Salts of potass, soda, and ammonia..	
Insoluble substances.	Resinous and fatty matters ..	20
	Starch	
	Insoluble salts of lime and magnesia	
	Vegetable fibre	
		100

M. Boussingault gives the following as the composition of some farmhouse manure, which had been standing six months, and which he calls *normal manure*:—

Water		79·30
Organic substances ..	14·03	20·70
Salts and earths	6·67	
		100·00

We designate by the name of *town manure* the dirt and refuse of every description which is collected in the streets. These matters have a very complex composition, and, usually, they are not employed in agriculture until they have undergone a previous fermentation. During this process, they liberate large quantities of sulphuretted hydrogen. Sometimes lime is added to them, with the view of accelerating decomposition, but this addition risks the loss of a certain quantity of ammonia. This manure should always be allowed to rest a certain time, for the fermentative action thoroughly to complete itself. If it be employed in the fresh state, it would ferment in the bowels of the earth with too great energy, and thus burn up the radicles of the plants.

The name of *compost* has been given to some mixtures more or less analogous to town manure, and which are formed by arranging manures of different kinds in alternate layers. We may conceive that a host of organic *debris*, the remains of plants, waste animal matters, the liquids which escape from our manufactories or even from our kitchens, may serve for the fabrication of manures. Too frequently, and especially in large towns, matters, which the agriculturist might turn to great account, are wholly or in most part lost.

A farmer, named Jauffret, imagined that, with the aid of branches of fern, reeds, furze, and organic debris of various natures, he could manufacture an artificial manure by determining in these matters a very rapid and energetic fermentation. For this purpose, he piled them up after having divided them into small fragments, and moistened them with a solution of some mineral and organic matters in a state of putrefaction. The most suitable place for this manufacture is the neighbourhood of some pond containing stagnant water, and which should also receive into its interior a certain amount of fæcal matters and urine, or the contents of some sewer. We are afterwards to add gypsum, ashes, and saltpetre. By sprinkling the vegetable *debris* with this liquor, a very active fermentation is quickly established; the air imprisoned in the mass favours this reaction, and the temperature, in the interior of these piles, frequently attains an elevation of 75° Centigrade. In twelve or fifteen days, we thus obtain a manure which is capable of being employed immediately.

The expense of this manure, nevertheless, is great; by following the plan laid down by Jauffret, 2000 kilogrammes would cost about twenty francs; whereas the same quantity of stable manure is worth but from ten to fifteen francs. M. Lucy, who has given great attention to this subject, has calculated the expense at somewhat less. In leaving, however, to the practical agriculturist the care of resolving this problem in its varied and economical bearings, we cannot too strongly recommend the system itself, which evidently rests on a sound foundation.

So soon as the importance of the azotized manures for the alimentation of vegetables was fully recognised, no time was lost in endeavouring to turn to profit all those substances which contain nitrogen in greater or less abundance; true manufactories of manure were quickly established in some of the most important towns of France. Indeed, the fabrication or preparation of these substances may, at the present day, be said to constitute a branch of chemical art, which tends to bring to agriculture, under the most desirable form, that supply of nutriment which the farmer is wholly unable to furnish to lands otherwise well tilled, and which must lead to the best possible results.

All parts of animals are capable of forming excellent manures, since all are extremely rich in nitrogen. We have already seen how to turn these to account in the natural state; but, should we wish to convey these matters to a distance, to prevent them from putrefying, to preserve them for any lengthened period, or, finally, to render their effects more lasting, we must give to them a certain preparation, which at the same time renders them less apt to communicate a disagreeable taste to the vegetable.

It is more particularly in slaughter-houses that we are enabled to prepare these animal manures, and to turn to account matters which would otherwise be lost.

The blood may be preserved for any period by coagulating it at a temperature of 100° Centigrade, either directly by placing it in a copper heated over the naked fire, or, which is preferable, by employing the intervention of steam; in the latter case, we place the blood in a tub or vessel made of wood. The coagulated part is removed by means of a large ladle, subjected to a degree of pressure sufficient to expel from it the greater part of its moisture, and, lastly, dried in the open air, or in a drying machine, through the intervention of a current of hot air.

The blood, when dried and pulverized, is placed in casks, and can be thus transported to any distance that may be required. Prepared in this manner, it constitutes a very concentrated, rich manure, containing as much as thirteen or fourteen per cent. of nitrogen.

In horse slaughter-houses, after having boiled the carcase of the animal in large wooden vessels, heated by steam, they detach the flesh from the bones, then dry it in the sun, and finally terminate this desiccation in a stove by a current of dry air. The matter has now become friable, and may be pulverized by subjecting it to the action of the pestle, or by means of a vertical mill. Reduced into a coarse powder, the dry flesh forms an excellent manure, which becomes decomposed more slowly than the fresh tissue, and which maintains its fertilizing action for a much longer period. Unfortunately, the purposes for which this dried flesh is used, whether for the manufacture of prussiate of potash, or as food for some animals, keep up its price at a rather elevated figure; its employment as a manure is, consequently, limited to the more productive plants; thus, it is exported to the colonies, to be used in the cultivation of the sugar-cane. Its richness in nitrogen renders its transport much less expensive than that of other manures.

The bones, when suitably prepared, constitute an excellent manure, which is very extensively employed in England. In France, where bones are scarcer than in England, the cost is considerably greater, by reason of their application to the manufacture of animal charcoal; still there are some localities in which we find them used as manure.

Before employing the bones, we should extract from them, by ebullition, the fatty matter which they contain, and which may be sold to great advantage; then, we are to reduce them to a coarse powder by means of grooved cylinders of great power, and which are set in motion by a steam-engine; the grinding is commenced by cylinders having large and widely-separated grooves, and terminated by instruments of a much finer description. This manure is held in such esteem in England, that its price may be said to range from fifteen to eighteen francs the hectolitre, whilst from ten to forty hectolitres are consumed in manuring the *hectare* of ground. The principal merit of bones, as a manure, consists in the slowness with which they are decomposed; their action on vegetation is extended over several successive years. Thus, whilst some manures, much richer in nitrogen, are rapidly decomposed in the ground, and lose in the atmosphere a part of the fertilizing gases which the plants have not time to assimilate, the bones, on the contrary, furnish, little by little, these gases, and thus yield the best ultimate results.

Those bones from which gelatine and glue have been extracted, also such as have been a long time exposed to the changes of the atmosphere, give a manure much inferior to that produced from fresh bones; it being, in fact, so much poorer as the organic matter is in less proportion.

At Thiers, in Auvergne, mills are erected for the grinding of those bones which are not considered fit for the manufacture of handles of knives and other instruments which are produced in that town in great quantity. The powder arising from these bones is of a coarse description; sometimes it contains pieces as large as a bean; it is greasy to the touch, and leaves a soil on paper.

After being dried in a stove, this powder was found to yield in every 100 parts:—

Combustible animal matter	43·86
Phosphate and carbonate of lime ..	56·14
	100·00

This is seen to be nearly the normal composition of bone.

There is no doubt but that the animal matter of the bones plays a very important part in their application as a manure; but we should form a

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very false notion were we to underrate the importance, or even the absolute necessity, of the phosphate of lime which they contain. In exporting meat and corn, the agriculturist may be said to export the earthy phosphates, for the osseous framework of the animal is formed of these materials, whilst wheat, also, contains remarkable quantities of them.

It becomes, therefore, necessary that these phosphates should be restored to the earth, for light soft lands naturally contain but very little of them. Hence the most simple process consists in giving back to the ground the urine or excrementitious matters of the people whom the wheat has nourished, or the bones of the animal of which the flesh has been exported.

There is no doubt, however, but that the natural phosphate of lime—as, for example, that of Estramadura—would form an excellent corrective, and that its application to this purpose is well worthy of being tried on a scale sufficiently large to enable us to judge of its efficacy.

The most economical method, then, which the agriculturist possesses of giving to the soil those essential products which the plants have abstracted from it, consists in the restitution of ammonia and of the earthy phosphates. M. Bousingault has, on this principle, been led to essay the employment of the ammoniaco-magnesian phosphate, from which he has derived the most beneficial results, in some experiments which he made on the cultivation of a variety of maize.

CLINICAL OBSERVATIONS ON SOME OF THE MORE FREQUENT DISEASES OF CHILDREN.

By W. HUGHES WILLSHIRE, M.D. (Edin.), M.B.S., Physician to the Royal Infirmary for Children, &c.

(Continued from p. 32.)

GENTLEMEN,—When I last addressed you I entered upon the consideration of those forms of diarrhœa in which the motions are evidently changed, not only as regards *frequency*, but as to *nature* and *quantity*. I told you to beware, if you recollect, of trusting too much to the appearances of the stools in judging of what portion of the intestinal canal they are altered by or proceed from. With this caution, the observation of them will, however, be highly important.

We may say, speaking generally, that a dejection has as its basis the *residues* of properly elaborated material and of aliment, &c., only half digested, or otherwise imperfectly acted upon by the elaborative offices. With these are mixed up more or less of the alkaline fluid secreted by the liver, the bile, and the more or less acid ones of the mucous crypts and follicles, varying from the character of mucus to that of mere serosity, and of the blood more or less altered according to circumstances I shall afterwards notice. To these now and then, in rarer cases, may be added muco-purulent matter, and a kind of "pseudo-membranous debris." In the union of these various things in the intestinal tube, of course reactions take place, which often further increase the heterogeneous character of the stools, still more affected too by the power of the drugs and chemicals. At the commencement of one of these forms of diarrhœa the dejections, from being at first slightly altered in their tint of yellow from some change in the biliary secretion, more fluid and of slighter frequency, will proceed through all grades and changes until until they become more like green water, acid and irritating, voided twenty times in the day, or squirted out forcibly with pain, and causing erythema and ulceration about the nates and thighs. Or they occur as repeated stools of glairy, slimy mucus, marked by streaks of blood, attended by much griping and pain on their passage. Between these extremes you may have all sorts of motions; and if you refer to some books you will find that particular forms of diarrhœa are founded upon the appearances of the motions, and a special part of the digestive apparatus is assumed to be concerned in producing them. But, as I have told you, the nature of the stools depends upon so many different and variable circumstances, that it is impossible we can glean all such supposed advantages from their observation; and all we can do is to notice particularly the more general and original forms of diarrhœa, and then consider their combinations or deviations as subsidiary. Some persons may maintain the "diarrhœa of dentition" is characterized by a particular kind of stool, and so, also, that of the "atrophia ablactatorum;" that diarrhœa dependent on inflammation of the colon has likewise a dejection peculiar to itself. But I think you will discover that the diarrhœas of dentition, of weaning, of inflammation, vary most remarkably, and that although a child may have in one case pale clayey motions, or mucous diarrhœa, or the "watery gripes," or drab, yeasty, frothy motions, yet in other examples of the disorder, whether it be that of dentition, weaning, or inflammation, the general character of the motions shall be something else altogether: it shall *miss*, as it were, the kind of stool usually allotted to it, and run through all the other forms according to the stage and severity of the malady.

Some general laws with respect to the stools I shall give you, however. The more frequent, the more watery and heterogeneous, and the more ascescent, the worse are they. The more the want of homogeneity, at a late period of the malady, is caused by patches of green stuff, streaks of blood, and lumps of matter, whether white pieces of undigested caseum, &c., in infants at the breast; or fatty-like, or fibrinous, or other nodules in older children, the worse still. Here we not only have the diarrhœa to deal with, but the imperfect, if not complete want of digestion at the upper of the intestinal canal. In such cases there is this danger added to the exhausting diarrhœa, that there is almost an entire loss to the patient of fresh aliment to support the body. In such combinations we may believe in there being, after death, anatomical alterations of very appreciable character. In some of the very worst cases, at the last, the motions are mere water, running away gradually from the child, and scalding its nates and thighs. Besides the stools, there are several other things which you have to attend to in drawing your conclusions of the particular diarrhœa. These, however, you will learn as I speak to you of the several varieties; but I may just mention, that whilst a variety which is not accompanied by fever is in general a slight affection, and with due care and attention may be easily remedied, the same, when associated with great febrile exacerbation, becomes a very different matter to deal with. The higher the fever, the more prominent the vomiting, the more evident certain epiphenomena exist—such as stomatitis and angina—the worse is the affection. The more the lips are cracked, the greater the emaciation and leaden colour of the skin, the more serious is the malady.

The form of diarrhœa I have now to notice is the catarrhal or serous. This variety, like the sympathetic, may attack children of all ages, and may be induced by all sorts of causes. But, like all other forms, unassociated diarrhœa is far more common in infants at the breast, and under three years of age, than above that period. This is a general rule with regard to diarrhœa you must not forget. Diarrhœa, as a disease, as I view it, is, *par excellence*, a disease of infancy and very early childhood; as such only, also, it may be said to kill. When diarrhœa becomes obstinate in elder children, it merges into another disease; or, when it has become so, it has been preceded by another, of which it is merely a complication. It comes before us a complication of remittent or typhoid fever, of the exanthemata, of gastro-enteritis, of ramollissement of the digestive mucous coat, in all their various forms.

Diarrhœa of any character may, and does, attack children of all ages, from that of a month to puberty. But it is in those we find at the breast, or being brought up by hand—in those in whom dentition is proceeding—that we have so much to do with diarrhœa *per se*. It is also to such children that it proves fatal. I draw your attention to the table before you, which is made from those cases which presented themselves at the infirmary on the 29th of July and the 2nd of August—the time when diarrhœa began to increase rapidly.

Sex.	Age.	Dejections.	Worms.	Blood.	Frequency in twelve hours.	Weaned or not.	
	Y. M.						
F	0·8	Watery ..	..	..	"Continually"	Not	Vomiting.
M	0·9	Yellow and thin	..	..	4 to 5	Not	Vomiting, tongue white.
F	1·5	Watery ..	..	..	6	Weaned	Loses flesh.
F	1·6	Watery ..	..	..	10 to 12	Weaned	Ill a fortnight.
F	1·8	Watery ..	..	..	8 or 9 already this morning	Weaned	Ill a week, had scrofulous vaginitis.
M	1·1	Green, watery	..	Pure blood	20	Weaned three or four days	..
M	1·0	Green & lumpy	..	Sometimes a little	12	Weaned a week	Motions very offensive.
M	1·7	"All sorts" ..	..	"Congealed" blood	20	Being weaned	Ill a month.
F	1·11	Slimy ..	Ascarides	Blood	12	Weaned	Stomatitis.
M	0·4½	Green, and like white of egg, yellow ..	..	..	20	Not	..
F	1·0	Slimy deep yellow ..	..	..	15	Not	Motions very offensive.
M	0·3	Green, slimy..	..	..	7	Not	..
M	1·0	Green, slimy..	..	..	8 to 9	Not	Marasmus.
M	2·0	Dark, offensive	..	..	4 to 5	Weaned at 1·0	..
M	5·6	Dark, offensive	..	Sometimes a little	5 to 6	..	..
M	1·9	"Curdled" ..	..	..	2 to 4	Weaned	..
M	2·0	Green, watery	..	..	5 to 6	Weaned	..
F	2·0	"All sorts" ..	..	Much blood	20	Weaned	..
M	1·2	Watery ..	..	..	4	Weaned	..
F	1·6	Very slimy ..	..	Sometimes	12	Weaned	..
M	0·5	Thin, yellow..	..	..	12	Not	..
M	0·7	Green, slimy..	..	..	4 to 5	Fed	..
F	1·5	Slimy ..	..	Yes	15	Weaned	..
F	0·11	Green, slimy..	..	..	12	Not	..
M	0·10	Whitish yellow	..	..	"All day long and all night"	Not	Vomiting.
M	0·8	"Vary" ..	..	"Has been"	"Very frequently"	Dry nursed	..
F	2·0	Watery ..	..	..	6 to 7	Weaned	..
M	3·0	Slimy ..	Ascarides	..	12	Weaned	..

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I may remark that Rilliet and Barthez, out of 88 cases, found 18 above six years of age, and 70 below; and in the Fifth Report of the Registrar-General it is shown that, out of 100,000 males dying in London under five years of age, 2797 die by diarrhœa, whereas at five, and under ten, only 749 succumb.

However, to return to the symptoms of catarrhal or serous diarrhœa. I may remark that, after some warnings, like restlessness, twisting the legs about, or flexing them on the belly, in infants; and in elder children, complaints of pain in the stomach and head, the child becomes purged, the dejections gradually more fluid, and lose their proper colour. The tongue is clean. There is no heat of skin, nor any loss of appetite. The dejections, however, become still more frequent and watery. There is now great nausea or striving to vomit; the tongue white, yet moist; the stomach soft, and not painful on pressure; the skin not discoloured; but the appetite may be diminished gradually; from the attention paid to the cause of the disorder, and from the child being duly treated, the motions become less fluid, more opaque, and fewer; the tongue cleans, the appetite increases, and the child gets better. But the reverse may happen: the stools still increase in frequency and fluidity, and have patches of green here and there, and present a very heterogeneous appearance; the child at the breast shows febrile symptoms of a remitting form; elder ones those of a more continuous character: in both there is vomiting, often distressing, of biliary and undigested matters. If the disease still makes progress, the infant becomes pale and weak, the skin very sensible to cold, the tongue deeply coated, and the flesh loses its firmness along with the increasing serous dejections. Elder children complain of their head and belly; the appetite is greatly diminished, and the thirst increased. Sometimes, however, the appetite is beyond what is natural; I have seen it ravenous. To the intestinal disturbance may now be associated stomatitis in its various forms, prolapsus of the rectum, erythema of the nates and thighs; and in older children, angina. Though all this shall happen, considerable debility be produced, the system having suffered much "wear and tear" from the continuous watery dejections, all may yet go well again, the child quickly recover, and we shall have no evidence for believing that, supposing during the disorder an accident had killed the child, and we examined its body, we should find appreciable anatomical alterations in the intestine.

But such a course as the above may be, sooner or later, departed from: the disorder may go still further, assume more severe characters, or may have at once broken out with them. We may see it run from the simplest form of the "watery gripes" up to the highest of "lienteria;" or it may break out with such violence in an already debilitated constitution, that, in three or four days' time, death may result, the child dying in a state of collapse or coma. The dejections may be at once abundant, continuous, and watery; the child neglected, or not at once attended to; the face and extremities get cold and pale; and the child die with all those symptoms I have spoken of before, when I made some remarks upon hydrencephaloid disorder. (a)

Though this form of diarrhœa shall commence in the more modified and milder manner, the stools may become more green and watery, with here and there some mucus streaked with blood, constant in frequency and often abundant in quantity. Now and then a motion is passed having pieces of scarcely altered, or undigested, matters or aliment in them, perhaps squirted out forcibly, smarting and scalding the anus and thighs. With all these is seen great loss of flesh in the child, a dirty or discoloured skin, often constant vomiting; in fact, the disease passes into one of a distinct inflammatory character, of whose symptoms I shall presently speak to you about. The child shall first exhibit a slight increase of serous exhalation, the disease shall progress, death ensue, and entero-colitis be seen afterwards on examination.

Whilst you will have many children brought to you to treat for diarrhœa, exhibiting only slightly-increased frequency in respect to their dejections—a little altered, perhaps, by a change in the biliary secretion; or, again, characterized by the milder form of the increased serous exhalation, as I have just spoken of—you will find others suffering from diarrhœa whose stools are always more or less "*slimy*"—children having the *mucous* form of the affection. At the commencement the stools are rather less consistent, and of varied colour, with here and there patches of mucous or gelatinous matter mixed up with them; gradually they become more fluid, passed with more pain and itching at the anus, but yet distinctly mucous in character. If the diarrhœa goes on, the motions have a very nasty sickly odour; sometimes they become intensely offensive, but this generally happens with the darker motions of elder children; sometimes they consist of a thin gelatinous matter, having streaks of blood, or even large quantities, floating in or mixed with the mucus. At other times small lumps of fœcal matter float in a sero-mucous fluid, intermixed with numberless ascarides. In a still further stage the dejections may assume the peculiar thin, white, milky character, marking what has been called "chylous diarrhœa;" or they may run into the thin, green, watery motions of the worst form of serous diarrhœa. In other cases the true mucous type may pass, like the serous one, into a diarrhœa of inflammatory character. In the mucous form of diarrhœa the belly is generally more tense and hard than in the serous one, and the tongue more likely to be coated early. But there is not in general the same risk of febrile disturbance; not the same concomitant general *malaise* as in the others; but I think we may say the *stomach* is more out of order. In both of these latter diarrhœas we have excess either of the serous or mucous exhalations of the intestinal canal: often of both. The more either is alone increased in quantity, so of course is the character of the dejection plainer; but as both may be increased, and the nature of a motion will be dependent, as I have already shown, on many other things besides, you can imagine how various may be a *stool*. In either of the serous or mucous forms you may have at the *beginning* of the former the frothy, yeasty, drab-coloured motion you will so often read of in books; in the *middle* of the latter you may have it too, or often before it passes into the diarrhœa of the serous type. What we may call the verno-autumnal diarrhœa of children is very often marked at different periods of its season by stools of particular character. This season I have noticed that at first the more frequent kind of stool alluded to by the mother was the "watery"; towards the middle it became mucous, "slimy"; and within the last week (Sept. 16) I have heard of more "frothy" stools in one morning than all the time before. Of course I have had others described to me, "curdly," very often "quite white, like chalk"—"like egg"; and sometimes so strange was the description of them that I could make nothing out of them; and as I did not see them I cannot describe them to you. Another remark on the *season* of the disorder I have to make is this, that towards the end of it I think those cases which you see you will find more often accompanied by febrile erethism than at the beginning; I find it to be so, at least. This may happen from the fact that those who are attacked early are those who are very susceptible, whose intestinal irritability is lighted up on the least stimulus, and does not wait for any great constitutional irritation to occur first; whilst those who are attacked last are those not so irritable or liable, but those in whom the vital powers must be more generally influenced, in whom there must first occur a more universal *upsetting* of the constitution. When speaking of the febrile excitement accompanying diarrhœa, I forgot to say that I think it is far more often seen in younger children, in the catarrhal varieties, than the French authors, especially Bouchut, allow. However, it is astonishing sometimes to observe what frequent and enormous evacuations of green watery matter take place, and yet the child preserves its appetite, and betrays not the least febrile disturbance.

These forms of simple diarrhœa, the sympathetic and catarrhal—the latter including the serous and mucous types, with all their varieties and combinations—are those you will find prove the most amenable to treatment; because, as I have told you, they are functional disorders, they are diarrhœas of muscular irritability or of increased exhalations, and have not their origin in appreciable structural lesions. But, as you have seen, the catarrhal form may now and then take upon itself so exaggerated a state—the symptoms run so high, the vital powers be brought so low, and the superaddition of other phenomena be seen—that we are often at a loss to determine whether or not inflammation has really been lighted up. This is particularly the case in the *lienteric* forms of the malady in which pellets of undigested or scarcely altered matter are passed in the green, watery, acid evacuations. Here, as M. Trousseau has remarked, the symptoms may result from two very opposite conditions of the system, often difficult to distinguish from each other, and each leading us to adopt an opposite line of treatment. In the one case the disease may be connected with an inflammation of the intestine; and in the second, we may have to cope only with a perversion of functions induced by debility. There is also this to be taken into account, that it is highly probable, as has been affirmed by Legendre, that wherever the severity and continuance of the discharge are great, it alone, as it passes through the intestinal tube, is sufficient to produce, by its local irritation, inflammation and even ulceration of the follicles of the mucous lining, and that, in fact, many of the morbid changes in the canal are the consequences of the diarrhœa, and not its cause. This, though true, will yet further complicate a hitherto simple functional form most severely, and in such a case we may have enteritis, with finally, ramollissement of the mucous lining of the stomach, arise from at first a very simple source. It will behove you then, in all persisting forms of the simple kinds of diarrhœa, when you find they become accompanied by loss of flesh and febrile excitement, to be upon your guard, lest the disorder may pass into that formidable type of which I shall speak about at my next lecture.

(a) See *Medical Times*, vol. xvi., page 426.

ORIGINAL CONTRIBUTIONS.

THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

By GEORGE CORFE (Author of "A Popular Treatise on the Kidney," &c.), of the Middlesex Hospital.

[Illustrated by Portraits of Cases.] (a)

(Continued from p. 19.)

CLASS I.

DIVISION III. *Cerebral Sympathies in Irrationality; Countenance distressed.*

From Delirium tremens.
" in fever.
" pneumonia.
" pericarditis.
" enteritis.
" hysteria.
" mania.
" epilepsy.
" chorea.

(a) These portraits, which are painted from the life, by that eminent artist, George Fogge, Esq., are to be seen in the museum of the Middlesex Hospital School of Medicine, a woodcut being deemed inefficient to carry out the peculiar features and tint of each countenance.

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Paralysis agitans.
Paralysis e veneno.

DELIRIUM TREMENS.

This is a disorder peculiar to drunkards; it usually creeps on when they are deprived of their accustomed stimulus; but I have repeatedly noticed that men who are in the habit of drinking freely, and who at the same time eat largely of animal food, twice or even three times a day, rarely become the subjects of this disease; but if they fall off in their appetite for this kind of food, and still continue to take their usual quantum of beverage, bilious diarrhœa, perhaps, supervenes; they become disordered, dose themselves with salts, &c., and perhaps get bled, and the disease soon sets in with its usual fierceness of excitement. Such is the case with the brewer's draymen and porters, potmen, &c., in London, amongst which class of persons the far greatest number of these cases occur. Such is the fact, at least, with the idiopathic form of this disease; but the traumatic character occurs in the surgical wards continually, and even here, it may be observed, that if a drayman is brought in with a fractured thigh, and is able to continue to eat his accustomed quantity of animal food, with a fair allowance of porter, &c., he is most likely to escape the disease altogether. There is, at this moment that I write, a man in the accident ward, from one of the largest breweries, with severe laceration of the leg, and who has been allowed by Mr. Arnott, his surgeon, five pints daily of the very best porter, and which is certainly equivalent to a gallon of the publican's liquor in point of strength, and he has also been allowed full meat diet, extra bread, &c., and has hitherto escaped all symptoms of the disease.

These men, generally speaking, are rationed at a gallon per diem when in full work, and they usually drink at least another half gallon in their rounds delivering the beer to the different public-houses, where they are entitled, as they think, though it is only a custom in the trade, to have a pint of porter each, and some bread and cheese. They are not, however, habitual spirit-drinkers, and, considering the work that they do, and the temptations that lie in their way, they are as abstemious, in comparison, in dram-drinking as they are excessive in porter-drinking.

In the east part of London, and along the Thames, this disease is more frequently seen amongst the coalwhippers and bargemen, who drink even more than the draymen of the west-end; but, as they obtain their liquor wholly from the public-house, which is of an inferior quality, and not from the firm direct, as is the case with the latter class of men, it may be calculated that they swallow the same amount of alcohol in both instances. (a)

It should be observed that every case of threatening delirium tremens is preceded by more or less biliary derangement; and, as these men rarely enjoy active or healthy secretions from their alimentary canal, it does appear, from the observations of a large number of cases in this hospital, that the disease is purely hepatic in its origin. This opinion is entertained by our talented physician, Dr. Seth Thompson, who has most successfully treated some of the worst cases of this disorder with large and repeated doses of calomel, followed by brisk cathartics; and he has never been obliged to resort to opium at all, sleep having succeeded the active unloading of the hepatic system. It has long since struck my mind that the invasion of the disease springs from a sudden or, it may be, a gradual poisoning of the blood, by means of a chemical alteration in the bile and urine; and that some of the elements of one or both of these secretions are carried through the circulation. My chief reasons for drawing these conclusions are the following:—Since I have had an opportunity of watching the admirable practice of the above-named physician, the disease has given way, in a most decided manner, under sharp purgation with calomel, &c.; and the improvement is invariably coexistent with the passage of numerous dark, offensive, and deeply-bilious evacuations. The onset of the disease is ushered in with loss of appetite, foul tongue, giddiness, nausea; and, in an effort to throw off some of the morbid cystic bile, sickness and bilious diarrhœa may probably set in also. Again, a very large number of cases, and those of the worst form, present themselves with symptoms of poison by urea. It is stated that they have had one or more fits; these fits are distinctly epileptic, and exactly resemble those attacks which sometimes occur in persons labouring under albuminous disease of the kidney, and in whom the disappearance of urea from the urine, and its presence in the circulating fluids, has been repeatedly detected by Dr. Christison and others. In fatal cases of delirium tremens an epileptic fit is often the forerunner of death.

However, I will portray an instance of this disease before us. He is a bony, muscular, and well-formed man, between twenty-five and forty-five years of age: for it rarely occurs antecedent or subsequent to these periods of life. His countenance is bathed in a dirty sweat; his eyes are fierce, bold, and fiery, but the brows and eyelids droop somewhat, and the former are knitted. The angles of the mouth, whilst he is quiet, are slightly drawn downwards, the alæ nasi distended, and the pupils are small; the cornea is dusky; the mouth is parched, and the lips are dry and peeling. There is a sharp, knowing look about him, very significant of the disease, and he darts his eyes in all directions; and the moment a word is spoken he has fifty more to answer with. His loquacity is most striking, and the sharp, quick manner of answering all your questions is equally peculiar to this disease. When you get him into bed, and are in the act of putting his trousers aside, they are seized with a sudden earnestness, and he fumbles in the pockets for some supposed paper, bill, or money; the bedclothes are rolled up, the sheets made into ropes, and he tugs and pulls away at them, hallooing out to his companions, whom he supposes present, to come and assist him in pulling up this barrel, or hoisting this quarter of beef, as his occupation of drayman or butcher, &c., may have been. Whilst the men in the "public line," so called, a genteel phrase for "potboys," keep up an incessant conversation with their masters, mistresses, and the various customers:—"I say, Jim, look after that half-and-half just gone out; she has given me a bad shilling." "Pray, sir, what are you doing below there, in the cellar? Come up, you young rascal."—Sally! Sally! Sally! you fool, why don't you come when you are called? here are two half quarterns of gin waiting at the bar." In the midst of this noisy talk and bath of perspiration, the physician enters; perhaps he suddenly turns off to him, and, recognising him as a gentleman, will address him as such, thus:—"How do you do, sir; I believe you are Mr. Simpson, I hope you will be so good as to give my kind regards to Mr. So-and-so;" and then, turning to the keeper, will abruptly address him:—"Why don't you cut this string, you fool; pull out your knife, I tell you, and cut these ropes;" meaning the straps with which he is fastened down in bed; and again turning off to the gentleman:—"I believe, sir, you advertised for a livery servant, last week, in the *Times*. I read your advertisement, and was fully intending to wait upon you in the course of this morning, but Mr. Green persuaded me to go up in his balloon, and in descending we struck against St. Martin's Church, and I fell on the curbstone and received this blow over my eye, and got this sore (putting his hand to a blister on the forehead, placed there some hours before); and, therefore, I could not appear before you in such a figure as this. What wages, sir, pray, do you give, may I be allowed to ask?" &c. &c.

Now, I think, the main feature of this delirium lies in the following observation, which I have invariably made in this disease. There are always hallucinations of a pleasing or of an horrifying nature; but in the midst of the greatest loquacity you may stop him, by suddenly accosting him thus:—"Put out your tongue; where do you live?" &c.; and thus you may sit at his bedside, and keep up a tolerably connected gossip for a quarter of an hour, if you will not bother him with too many questions at once, but allow him to make his own running comments upon the questions which you put to him.

There can be no difficulty, one would have thought, in recognising this disease, and yet the instances are not few where the patient has been bled, lowered, and treated as a case of phrenitis, and has thus been hurried into eternity at the shrine of gross ignorance. The following is an example of this malpraxis:—

Thomas Martin, aged forty-three, a short, bulky man, a coalwhipper, admitted July 14, in a state of great agitation; tremors of the whole body, which is bathed in perspiration; countenance fierce, dingy, and covered with sweat; eyes wild, and reddish, with occasional knitting of the brows, expressive of mental anguish. He gives a correct account of his feelings and history, and corroborates the statement of his companions who brought him. Pulse quick and small; tongue furred; no sleep. It is reported that, whilst he was at work yesterday, he was suddenly seized with general tremors, giddiness, and pain of the head. He walked to an hospital with some difficulty, and was immediately bled to 16 oz. For some nights past he has been restless and watchful. He has been in the West Indies, and there he addicted himself to drinking large quantities of rum. Has had a similar attack before. He was allowed one-third of a pint of port wine, a pint of porter, full meat diet daily, and took one-third of a grain of morphia in camphor julep every six hours. A blister was applied to the neck, and a black draught given immediately.

On the 25th, five A.M., the following summary of notes may be given:—

Perfectly unmanageable, requiring restraint; talking and swearing horribly to persons not present; countenance much sunk and altered; bathed in perspiration; his whole muscular frame in constant agitation and strong action; pulse 120, feeble. Rum, milk, and eggs, every hour. T. opii. 3jss. every four hours. Heart's action devoid of impulse or sound.

At one P.M. this day, after a short interval of comparative quietude, he had an accession of all his furious symptoms, and died suddenly in a few minutes afterwards, in a paroxysm of rage and exertion, uttering the most horridly blasphemous language.

It is computed, says the note in the case-book, that he took nine drachms of laudanum in sixteen hours, without the slightest narcotic influence being produced.

On another occasion, the servant from a livery-stable-keeper in Bond-street was with us, and exhibited the most extraordinary activity, excitement, and mental as well as bodily ardour, in the attempt, which he was supposed to be executing, to drive his master's four-in-hand thoroughbred horses from the stables into the City. He held the reins (so to speak) in his hand, and, with the whip in the other, he mounted the box and started off up the stable-yard, on getting out of which into the street, the off leader, "a high-spirited creature, full of play and of blood," as he described her, made a shy at something, and nearly drove the coach against the wall; at this he became most eager and excited, explaining matters with the master, who was witnessing the exit of the coach from the yard, as we gathered from his quaint remarks; he continued to halloo at the horses, coaxing one, talking kindly to another, and swearing at the off leader. His actions, in his supposed

(a) Dr. Minisnowsky, Professor of Medicine in the Imperial College of St. Petersburg, visited this hospital last week, and expressed his surprise, on my informing him, that this disease is oftentimes brought on by the excessive drinking of porter only; whilst in the Russian capital, and in Moscow, the malady is only known as the result of the abuse of ardent spirits, for malt liquor is scarcely to be obtained throughout that country.

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driving; his rapid observations, as he passed down one street into another; his remarks upon the beautiful team; his jokes, his extreme mental anguish to get on and keep all safe, exceeded everything that I ever witnessed before or since. You might follow him in every street he went along, by his shrewd remarks and singular conversation; but all his dread on entering the City seemed to arise from the idea that he should not get the "off leader" to stand the noise of St. Paul's Churchyard.(a)

However, he turned into the yard, as he expressed it, and had not gone a very great distance, when it was evident by his gestures, increased excitement, and his language, that the leader of "high mettle" had shied at something, and in another moment he was against the curbstone, and the beautiful creature was sprawling on the pavement. The agony, the agitation, the sweat, the vociferating language, the horror, the busy, eager, and fierce glare of his eye and face, the shock, in fact, which this dreaded calamity produced upon his excited and incoherent mind was too powerful, and he never had a tranquil moment after it. The poor fellow sunk in a few hours more, from mere exhaution of the vital powers.

Post-mortem Examination Twenty-four Hours after Death.—Head. Scalp, cranium, and dura mater tinged with blood, which issued copiously when these parts were respectively divided. The arachnoid, generally speaking, puckered from thin, clear fluid, which was effused beneath it and the pia mater. There was an ounce of serum in each ventricle. The substance of the brain was rather more injected than usual, and the convolutions were small.—*Chest.* The heart was pale and flabby, and softened in its walls. In its cavities, instead of the usual accumulation of coagula and fibrine, there was a fluid more resembling curds and whey, deeply tinged with blood.

The peculiar paleness and flabbiness of the muscular structure of the heart, in fatal cases of delirium tremens, has been noticed before by myself, and a late house-surgeon, Mr. Lonsdale, who refers to it in his work on fractures, where he cursorily treats upon the character of this disease as occurring after severe accidents.

The extraordinary effect of cold affusion in delirium tremens has not, that I am aware of, been alluded to by writers upon the subject. There have been several instances in this hospital in which continued sleeplessness, violent excitement, profuse perspirations, contracted pupil, and rapid exhaustion have attended the exhibition of even larger doses of opium or morphia than were administered in the preceding case, and yet, with such unfavourable symptoms, the cold affusion, freely used, has induced calm and protracted sleep, with ultimate recovery.

Robert Pyper, Esq., surgeon in the 11th Hussars, and my late intelligent colleague in this hospital, informs me that whenever the men have been indulging too freely in liquor, and that the well-marked symptoms of approaching delirium tremens manifest themselves, he orders the hospital sergeant and another man to mount a table or ladder, place the patient in a tub below them, and pour, from this height, a continuous stream of cold water upon the head and chest of the offender until he is calmed down; he is then rubbed dry with a rough towel, placed in bed between warm blankets, and almost invariably falls into a deep sleep of many hours' duration, and awakes perfectly collected and well. We were induced to adopt this practice many years ago, in consequence of our utter inability to confine a strong, muscular fellow, whose fearful excitement, pugnacity, and rebellious obstinacy to take any medicine or food, set all our attempts to control him, or to induce sleep, at utter defiance. The house-surgeon and myself placed a chair on each side of his bed-head with a pail of cold water upon each chair. A man sat on each side of his body, and held his head and chest down, so as to prevent him rising up in bed. Two more persons supplied us, respectively, from the pails, with pints of cold water, and we alternately poured it in a small stream upon his forehead, face, and chest; the more he bellowed, the more fluid he gulped; he struggled for breath, and, again recovering his respiratory powers, hallooed and roared, "Murder! police! murder! police!" but so much the more did he get of cold water down his throat. We saw it was a desperate case, and called for a desperate remedy, if such it may be styled. We persevered, and so did he; but at length he choked, he gulped; the respiratory system became paralyzed, so to speak, or, at least, tranquillized; he whined, spoke mildly about our cruel treatment, inquired how long we were going on with that sort of work, promised to be quiet if we would leave off; and at length sued for pity, and entreated us to give over, as he had had enough. We instantly desisted, drew away the wet clothes, rubbed him dry, had some hot blankets ready at hand, covered him up, and he fell asleep, and continued in a sound doze for thirteen hours, and awoke perfectly well, but unconscious of all that had passed, only that he had dreamt he had been out in a pelting storm!

When this disease becomes so perfectly uncontrollable, whether by failure in the remedies administered, or by the obstinacy and refusal of the patient to take any kind of food or medicine, it may then be regarded in the light of mania, rather than in that of simple delirium tremens. We have no resource but in some such powerful agent as that of cold affusion; and the instances where it has proved of striking efficacy are not few.

It is needful, however, to advert once more to the fact, that a large proportion of the cases of this disease which have been admitted into the medical wards during the last two or three years, have been most successfully treated by full doses of calomel and aperients, whilst opium, as a narcotic, has been almost wholly abandoned; and whenever the former drug has acted briskly upon the hepatic circulation, and has brought away, for several days successively, a large amount of chocolate-coloured, offensive bile, the hallucinations have disappeared, tranquil and refreshing rest has followed, and convalescence has rapidly succeeded. But, although the authority of so eminent a physician as Dr. Watson is directly contrary to this practice, yet it is impossible to have witnessed the gratifying results of the purgative treatment without being fully convinced that this course of practice is both safer, and is based upon pathological principles more prudent, than is the treatment of drugging a semi-maniac, who is already poisoned by morbid secretions, with another narcotic, the action of which tends directly to check the separation of those morbid agents from the system which generate the disease. The following instance illustrates this plan of treatment.

William Kellarly, aged thirty, tailor, admitted April 20. Countenance wild and anxious; walked to the hospital, and stated that he could not rest for several days past, in consequence of being "nervous" at night. On more minute inquiry, however, he acknowledged reluctantly (a) that he had all sorts of visions, that rats and mice ran over his bed, and prevented him getting sleep. There was slight tremour of the hands, but no violence in his manner. He was immediately ordered, by Dr. Seth Thompson, five grains of calomel with one of opium, and a senna draught six hours afterwards. He passed the first night in a very disturbed and noisy manner; he was, however, tractable, and did not require any restraint. His hallucinations were chiefly about his work, and he was talking and calling to his various comrades. The following day the bowels began to act, and were kept open by a further purgative draught. The evacuations were abominably offensive in the ward, of a deep mahogany colour, and contained a large quantity of morbid cystic bile. The dose was again repeated, and the same results followed; but the secretions gradually presented a more healthy aspect, and did not emit such a fetid, unnatural odour. The patient slept at intervals refreshingly, and was convalescent in a fortnight. Purgation was still kept up two or three times a week, by a grain of calomel and nine of compound extract of colocynth; his appetitite returned keen, and his countenance assumed a lively animation, which was not seen on his admission. The same results followed in a case treated precisely in the same manner by Dr. Mervyn Crawford.

William Seagur, thirty, a potboy, admitted May 12, who acknowledged that he drank a gallon of beer a day, and four or six glasses of gin. He was a short, thick, fat, and bloated fellow, with a wild, fierce eye, horrid hallucinations, and had passed five or six nights without a "wink of sleep." But the chief peculiarity about this man's case was, that the disease was ushered in with tinnitus aurium, vertigo, temporary loss of consciousness, in short, with those sudden symptoms which are classed amongst the "precursors" of apoplexy. Doubtless many practitioners would have depleted him largely, under the belief that such a disease was about to set in; but it can be no matter of question with us, that, if such a treatment had been adopted (as is, alas! too often the case), the patient would have suffered from a severe attack of delirium tremens, and his constitution would have probably sunk under the attack; whereas, the purgative treatment by calomel, colocynth, and black draught was sedulously followed up, and, although it proved a more obstinate case than the former, yet he left the hospital in three weeks after his admission perfectly convalescent. It is but just, however, to add, that after a few days' severe purgation the Doctor allowed him a quarter of a grain of morphia at night, in consequence of the irritable, nervous state in which the treatment had left him. The hallucinations vanished as the alvine secretions presented a healthy aspect.

(a) This space is so very large that the reverberation of sound produces a striking contrast to the incessant din that goes on in other parts of the City. This must have been the ground of his fear.

(a) There is a remarkable shyness in patients afflicted with this disease to relate to a practitioner the hallucinations under which they labour; and unless you put "leading questions" to them, and inquire if they fancy that their fellow workmen talk to them at night, or if they think they see and hear cats, monkeys, bears, &c., about the room, they are very backward to acknowledge it.

ON THE CAUSES OF DEATH AFTER SEVERE SURGICAL OPERATIONS.

By HENRY SMITH, Esq., Surgeon,
Late House-Surgeon to King's College Hospital.

(Continued from p. 50.)

I shall now proceed to consider the causes of death after amputations. This part of my subject presents a more extended field for investigation than what I have gone over previously, as there are so many serious dangers connected with the operations of removing portions of, or the whole of, limbs from the body. I have notices of nineteen amputations, all of them of the lower extremity with the exception of three, two of which were amputations of the forearm, and one amputation at the shoulder-joint. Of the sixteen cases, six were of the thigh, six of the leg, and four were amputations of the foot, or greater portion of the foot. The number of fatal cases amongst the whole was six, namely, one fatal case of the thigh, four of the leg, and one of the upper extremity.

The mortality after amputations, particularly in hospital and civil practice, is considerable; and to any person who has carelessly looked over the statistics of this operation, collected on a large scale, it would appear unaccountable; but when we come to recollect under what various conditions and for what various circumstances amputations are performed, and, moreover, that

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these operations are done, not upon one part of the body only, but on different parts of a greater or lesser magnitude, it will not be difficult to understand that death will frequently take place after such severe proceedings.

In an operation of such magnitude as cutting off a limb, or the part of a limb, from its parent trunk, there are more serious circumstances likely to accrue, which may have an influence in bringing about a fatal result, than in the operations I have already treated of. Thus we have found that the mere shock of the operation will carry off the patient who has been cut for stone, or has had his abdominal cavity opened for the relief of a strangulated portion of intestine; but when a great part of the body is suddenly severed by the knife of the surgeon, this fatal collapse, especially under certain circumstances, is more easily produced. The very idea beforehand of losing an important member, the sudden taking away of a considerable portion of the body, the bleeding during the operation, and the sometimes vast amount of disease or injury requiring it, must, when combined, have a tremendous effect upon the frame: consequently the majority of severe amputations are followed by a more marked state of collapse, which will in many cases carry the patient to the grave. But it is more particularly when an amputation has been performed for some severe and recent injury—as a compound fracture, spreading gangrene, or secondary hemorrhage—that a fatal collapse is brought about. If a compound fracture, the system has already experienced a heavy shock; from the danger of which, to relieve the patient, the surgeon, in many cases, has the only resource in amputating. If mortification of a limb has taken place either suddenly or slowly, the powers of life have already become much depressed, and the vital energies so much lowered that no healthy reaction will occur, and the stimulus of the operation will probably hasten on the death of the sufferer. If the patient has suffered from severe or prolonged secondary hemorrhage, and there be no other resource but amputation, that operation will give but a poor chance of recovery; a further loss of blood will add much to the shock the heart and brain have already sustained; and the patient will be in a still less favourable condition to bear so severe an operation. The first of the six fatal cases is an example of death by collapse after amputation, on a patient whose system was already terribly shaken by one of these mentioned injuries.

The patient was an elderly man who had received an awful compound fracture of the thigh, in consequence of the passage of a heavy cart-wheel across it. The fracture had extensively involved the knee-joint; and, therefore, there was no hope but in amputating. The poor man was exhausted, much shaken by the accident, and the operation was, therefore, not performed until eight hours had elapsed. He bore the operation well, but, like too many of these cases, the proceeding was useless: he sank in a very few hours afterwards.

It is much more rarely that the shock of the operation destroys a patient who has been lingering for some time under a chronic affection of a joint. The system becomes accustomed gradually, as it were, to the irritation of the disease, and does not feel so acutely the effects of the operation, as when it is suddenly shaken by recent injury, as a compound fracture. It is the circumstance of the two shocks suddenly following each other that destroys the patient in such a case I have mentioned; and it has been a great question amongst military and naval surgeons, as to what is the best period for operating after such accidents. Some say that amputation should be performed immediately, before the patient has time to think of his miserable condition; others, that some hours should elapse before the operation is performed, in order to give the sufferer a chance of recovery from the shock he has sustained by the infliction of the injury. Baron Larrey and Copland Hutchinson held to the former opinion, and acted upon it with great success. Mr. Guthrie, on the other hand, a great authority—whose experience, however, in such cases was probably not nearly so great as that of the celebrated French surgeon—recommends some delay of a few hours, because he says, there is a great shock to the system, which must be removed by the administration of stimuli.

Mr. Copland Hutchinson says, that the best plan is not to allow the patient time to think about the operation which is to be performed upon him, but to proceed at once whilst he is suffering excruciating agony from the wound, which is much more severe than that caused by the operator's knife, and less easily tolerated.

Secondary hemorrhage is a more frightful cause of death after amputation: it is an accident likely to occur whenever any operation has been performed upon an artery, more especially when the vessel has been divided by the surgeon's knife, and a ligature has been subsequently placed upon it. If it take place from the main trunk, it is likely to cause death in a short time; but, if the bleeding come from a branch, the result may not be so severe. One of the cases I have noticed presents a very melancholy instance of death from this source; I shall mention the case more fully, as it was the severest I have ever witnessed, both in regard to the accident which necessitated the amputation, and the subsequent effect which produced death.

The subject of the case was a healthy young man, who, in attending to a machine composed of two circular rollers for crushing bark, had the misfortune to get his right arm entangled and rapidly drawn in as far as the shoulder. I was called to him whilst he was in this position, and from the nature of the machinery I found it was impossible to extricate him in any other way but by severing the arm, which was frightfully mangled, from the body. I accomplished this by means of a small pocket-knife alone, as the bone was broken; no hemorrhage had taken place. On his being conveyed to King's College Hospital, it was found that what remained of his arm was so dreadfully mangled that it was necessary to remove it at the shoulder-joint. This Mr. Fergusson accomplished with little bleeding. From the severe nature of the accident, and the operation combined, it might be a question whether the patient would rally; but he was a healthy, temperate man, and he suffered comparatively little. The skin was so much torn that hardly any could be found to make a flap, and, consequently, the tied axillary artery could be easily seen exposed and pulsating at the bottom of the large wound. Matters, however, went on favourably, and it was expected he would do well—Mr. Fergusson, however, cautioning me to look carefully after the artery which appeared so much in danger. A slight attack of erysipelas appeared in a few days, and some sloughing of the surface of the wound followed.

On the tenth day a tremendous bleeding suddenly took place, almost annihilating the patient; and this must have been the case had I not been at the door of the ward at the time. I stopped the bleeding, and a ligature was immediately placed higher up on the artery. He rallied considerably from this accident; but sixteen hours afterwards, in the middle of the night, another tremendous gush of blood took place, and the man's life was only saved this time by the presence of mind of a patient in the ward, who, having seen me place my finger on the artery the day before, jumped out of bed on the alarm being given, and stopped further bleeding. It was a question now what was to be done—where the ligature should be applied. The man, however, was so much exhausted, and the artery, higher up, appeared to my colleague, Mr. Brinton, and myself, to be healthy enough to warrant our putting on another ligature there; this was accordingly done; the poor fellow again rallied in a wonderful manner, but within eight hours the bleeding suddenly recurred and carried the patient off.

Pondering since on this melancholy case, the question has often arisen in my mind, whether the patient's life would have been saved, had the subclavian been cut down upon and tied at the time the second bleeding took place? It ought, perhaps, to have been done; the blame, however, if there was any, I am free to confess rested with me alone, as in such an emergency I chose to act entirely on my own responsibility.

Secondary hemorrhage takes place at different periods, and from various parts of the vessel; the blood will either come from the main trunk suddenly and with such impetuosity (as in the above case), that the patient will soon be carried off; or, on the other hand, a branch may bleed, or ulceration will take place at the seat of ligature, on one side only of the main vessel, and consequently the bleeding would be less fierce, and will give the surgeon more time to think what proceeding should be adopted. Secondary hemorrhage after amputation may occur in consequence of the vessel being laid open by some foreign body, such as a splinter of bone, or a piece of wood. Thus, Dr. Dewar relates the case of a man whose arm was amputated at the shoulder-joint, at the battle of Algiers. The ligature came away from the subclavian artery safely on the fourteenth day. On the twenty-seventh, hemorrhage came on; the vessel was cut down upon, and the edge of the knife used came in contact with a sharp splinter of bone, which had caused ulceration of the vessel, and consequent bleeding.

Another most frequent cause of death after amputation is irritative fever produced by the formation of secondary abscesses. Two of the patients who underwent amputation of the leg died from this cause. The first case was that of a healthy man, whose leg was amputated for disease of the tarsus. At the time of the operation there were the remains of some erysipelatous inflammation about his leg. This man went on very well for some days, but a change took place; he got fever, and an erysipelatous blush appeared about the stump. The veins of the limb became inflamed, and death took place after a few days. On *post-mortem* examination, the saphena and femoral veins were found to contain pus, and there were circumscribed abscesses in the lungs, and collections of matter in the pleura.

In the other case, the leg was amputated for a chronic disease of the tarsus, and the patient was a strong country lad. The symptoms after the operation were never favourable, and they caused great anxiety about the result. Fever of a low, irritative character set in, emaciation became extreme, inflammation of the veins of the thigh came on, and, although this was considerably subdued by the remedies pursued, other more serious symptoms set in. Destructive inflammation of the eye came on, and rapidly destroyed vision; subsequently, symptoms of pleuritis appeared, and with these he died. Unfortunately, no *post-mortem* examination could be obtained. We see then, in these two cases, another serious cause of death after amputation, namely, irritative fever and secondary suppuration. Under the same head I place phlebitis: for I believe that, as in these two cases, where secondary destructive inflammation is produced, the veins will be found more or less affected. These are accidents which may and do occur after any operation; but it is more particularly after an amputation that these results take place. A large surface is cut and exposed; the bloodvessels are exposed to the air, and other irritating agents; and foul dressings, it is to be feared, are too often allowed to remain on the stump, and the decomposed products become absorbed; and if the patient is lying in a hospital, perhaps much crowded, and the air not of the purest description, it is not very difficult to understand how such affections are produced.

This is an interesting subject, as it treats of a cause of death after operations which may be in a great measure removed—in fact, it has been partly removed. It is not so frequent now-a-days as in the times when surgeons were in the habit of dressing stumps with all sorts of things,

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in the fear that they might take cold. The very light and easy dressings that are now in use, and their not being too early or too frequently disturbed after the operation, render the occurrence of inflammation of the veins of much less frequency; at the same time it is an accident always liable to occur, especially in a hospital, and if there is any erysipelas about the place.

There is yet another cause for a fatal event after amputation, namely, delirium, or what may be more accurately called traumatic delirium, a very interesting instance of which took place in one of the fatal cases I have mentioned. The patient was a middle-aged man, who had suffered a severe compound fracture of the leg, just above the ankle. The broken tibia was protruding in such a manner through the wound that I was unable to reduce the fracture. Mr. Fergusson found it necessary to saw off this protruding part of the tibia, and determined to attempt saving the limb. This poor man was, unfortunately, of a very nervous temperament; he had at an early period of his life been in better circumstances, and latterly had sustained some severe pecuniary losses; this, as I learned from his wife, had preyed greatly on his mind. He became irritable and anxious under treatment, and proved the most troublesome patient I ever had to do with. There was great spasmodic action of the muscles of the limb, frequently causing displacement of the bone. To make matters worse, secondary hemorrhage came on, and then delirium of the worst character; with great care, however, and by means of large doses of opium, this symptom was overcome; but it returned again, and the local and constitutional disorders were so severe that amputation was advised; but at first he would not submit, and his symptoms became aggravated. At last the operation was performed, and the case went on admirably for a few days; but on the sixth day, watching this case as I did with the utmost anxiety, I noticed that the tongue had become dry, and the pulse was quickened. I knew what was coming: delirium again set in, those remedies which had in the previous attacks been so useful were now powerless, and he sank exhausted.

This dangerous condition is not only liable to supervene after amputations, but it is a consequence more generally, perhaps, of severe accidental wounds, as compound fracture and punctured wounds, and it occurs more frequently in those who are in some way or other predisposed to it. In fact, it is nothing but delirium tremens set up by some depressing shock to the system. It is one of those links in the chain of nervous disorders which prove after amputation so troublesome to the surgeon and fatal to the patient. The brain, irritated either by alcohol or care, will suffer in the same manner after any severe operation or injury; and the effects of this disordered condition of the organ will appear in the shape of delirium, spasmodic action of muscles, and even tetanus. We sometimes see these unlucky results take place after severe operations or injuries, even when there is no apparent predisposing cause for them; but under the circumstances I have mentioned there is a greater likelihood of their coming on. It behoves, then, the surgeon who has to perform an operation in such a case, narrowly to watch for the first symptoms of a disorder which, at least, will cause him great trouble, if it does not destroy his patient.

I have now finished my remarks on this very important subject; having attempted to point out the various dangers which may beset the surgeon in the employment of his art, and the causes of those unfortunate accidents which are always liable to occur when such formidable operations as I have been reviewing shall be undertaken. Surgery has, happily, now become divested of many of the horrors and dangers which were the necessary attendants upon it in the days when it was deemed to be a mere handicraft, and not thought worthy of the name of a science; and, with the means of alleviating pain which the surgeon now possesses, a surgical operation, as regards its actual infliction on the patient, is looked upon without dread; but yet the consequences of the proceeding are the chief cause of the surgeon's anxiety, for he cannot foretel what may happen, and he knows that dangers are to be feared. An accurate study, however, of these accidents, and an investigation into their causes, will render them less likely to happen, and less fearful in their consequences if they should take place; moreover, it will simplify surgery still further, as it always has done: because, in order to avoid dangers and ensure a safer result, the surgeon will find out safer and less complicated methods of performing operations; it is thus that one of the greatest improvements in operative surgery was brought about, namely, the operation for aneurism: for (to use the words of Mr. Samuel Cooper), "In the practice of surgery, whenever operations proved inadequate to their intention, Mr. Hunter always investigated, with uncommon zeal, the causes of ill success; and in this way he detected many fallacies, as well as made some important discoveries, in the healing art." It is only by the observation of facts and the study of causes that remedies can be found: a wise traveller, about to enter upon a dangerous and difficult journey, endeavours to find out the perils and impediments which may meet him, and, in as far as it is in his power, to provide against them. Thus, also, the surgeon who regards his profession as a science, and wishes to do his duty to his charge, endeavours to find out the dangers which he may meet with in the performance of that duty; by this means he gains art; he is able, in a great measure, to control them, and if he cannot do this, he is not taken unprepared should any unfortunate result happen.

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ON RHEUMATISM, AND ITS OCCASIONAL CONNECTION WITH CHOREA ST. VITI.

By B. PEACOCK, M.D., Darlington.

The complex nature of rheumatism is sufficiently proved by the opposite modes of treatment which the first practitioners of the day have from time to time respectively advocated. Some, as Sydenham, regarding it as a purely inflammatory disease, and to be cured by a simply antiphlogistic treatment; others considering it as a nervous disease, for which quinine, opium, &c., are, even in the acute form, the most appropriate remedies. That it is sometimes, both in its acute and chronic forms, connected with a disease usually considered purely nervous, viz., chorea, I am convinced from cases occurring in my own practice. Other practitioners may, in all probability, have made similar observations, although I cannot at present call to mind any records to that effect. If any such exist I should be glad to have them pointed out to me, as I believe, if the connection betwixt chorea and rheumatism can be established as a fact of even rare occurrence, its practical bearing will not be unimportant.

The first case I have to mention is of a girl, aged twelve. When called in, the symptoms were simply those of febrile excitement, for which saline purgatives were given two days successively. On the third day there was decided chorea with slight fever. I gave her a mixture, with Fowler's arsenical solution and Tr. opii. (three drops of the first and five of the latter for a dose) every six hours. This she took regularly for two days; on the third the chorea subsided, and well-marked rheumatic symptoms, swelling and pain of the joints, and increase of fever, came on. She had then Dover's powder in sudorific doses every four hours, with occasional purges. In a week from that time the pain had nearly left her, and she soon recovered without any relapse.

Case II.—A girl, about nine years of age. On March 7, 1846, feverish symptoms, for which calomel purges and saline mixture with vin. antim. were given. 8th, ditto. 9th, every symptom of acute rheumatism. Dover's powder, with a mixture containing vin. colchici, to the 26th, when the rheumatism subsided and chorea immediately supervened. For this, pills, with bismuth and an arsenical mixture, to the 8th of April, when the chorea began to abate. Quinine was then given to April 14, when, the chorea having disappeared, the rheumatism in a subacute form again came on; the joints swollen and very painful, but not much fever. The quinine was continued, and Dover's powder, twice or three times a day, added to the treatment: this was pursued without change to May 13, when palpitation of the heart, soon followed by œdema of the extremities, became the prominent symptom, for which diuretics in various forms were given, but without effect, and the case was eventually removed from under my observation apparently in a hopeless condition.

Case III.—I did not see this at the commencement: the subject was a farmer's boy, aged fourteen. From the account which his friends gave, it appears he had had acute rheumatism about two months before; it had now passed into the chronic form; there was no fever, but great pain in the joints, especially the ankles, which were not swollen; general debility, want of sleep, &c. A mixture, with hydriodate of potash, ter die, and 10 gr. Dover's powder hor. somni., gave immediate relief, and was continued for some weeks, when a very urgent message came for me to visit him; he was some miles distant, and I was unable to attend immediately. On my arrival I found the boy's friends and neighbours in great alarm and perplexity about him, he having been, as they said, quite suddenly attacked in a most strange way, and, as it appeared to them, he was "going out of his head." On entering the house, I found him in the most complete state of chorea I ever saw, both sides being apparently equally affected; he had an anxious and frightened expression, and gave short and confused answers. This, with the strange antics which the disease occasioned, had, no doubt, impressed the good people with the idea that he was deranged. I ordered him a pretty strong arsenical mixture every six hours, with a dose of calomel and opium at bedtime. On the following day, I was glad to find the violence of the chorea had almost immediately subsided after beginning with the medicine. The disease, however, continued very obstinate, and had to be treated with arsenic and sometimes quinine for upwards of two months.

In the first of these cases we have chorea with fever ushering in acute rheumatism.

In the second, a well-marked case of rheumatic fever, ending in heart disease and dropsy, and in the very midst of it an attack of chorea, continuing upwards of a fortnight, during which time the rheumatism was, as it were, in abeyance.

In the third case we have chorea supervening on chronic rheumatism.

The practical conclusions which I draw from the connection betwixt these two diseases are sufficiently obvious.

In obstinate cases of rheumatism, either acute or chronic, when in the first state, bleeding, colchicum, calomel, and Dover's powder seem ineffective; and in the second form, when turpentine, sulphureous waters, baths, &c., seem also likely to fail, might not a trial of arsenic, bismuth, iron, &c., the means usually relied on in chorea, be advisable, even although no symptoms of chorea are then presented? and, on the other hand, might not the usual treatment of rheumatism, colchicum, Dover's powder, baths, &c., be substituted for the routine of tonics and aloetic purges, in certain intractable forms of chorea? I remember only one case of chorea terminating fatally, which was treated throughout on the tonic and aperient plan: the subject, a girl, about twelve years of age. The convulsive movements went on regularly increasing in severity, until her strength seemed to be worn out; and, although opiates were given pretty freely towards the termination, I am inclined to think, if they had been employed earlier, along with other sudorifics, she might have recovered.

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OBSERVATIONS ON THE NATIVES OF THE THREE KINGDOMS OF AMBRIZ, AMBRIZETTE, AND MUSULA, SOUTHWARD OF THE RIVER CONGO, WEST AFRICA.

By W. F. DANIELL, Esq., M.R.C.S.

(Read before the Ethnological Society, November 12.)

From the slight and meagre information we possess respecting most of the countries in South-western Africa, and the restricted commercial intercourse carried on by the English merchants, this part of the African continent appears to have created but little interest or regard in this country. It is now, however, indubitably well understood that, in many of the fertile regions of the interior, no paucity exists in any of those vegetable and mineral productions which have hitherto been deemed the most valuable in other portions of the globe; and it only requires a thorough investigation into the merits of this subject to prove that a commerce, once firmly established and judiciously fostered, cannot fail to become lucrative to its promoters, and would ultimately tend to the advancement and prosperity of the mercantile interests of Great Britain.

In the present paper, prior to any consideration of the general characteristics of these races, it will suffice to merely advert to the geographical position, boundaries, and relative situations of these kingdoms, and also to point out a few of those topographical distinctions which in tropical climates exert such a dominant influence on the habits and physical conformation of man. The maritime territory to which I shall now direct your attention embraces a tract of coast above 130 miles in length, extending from Cape Padron, the south-western point of the river Congo, in lat. 6°. 8'. 38" S., and long. 12°. 13'. 53" E., as far as the Rio Dandé, the stream that bounds the northern limits of the Portuguese possessions in Angola, the embouchure of which is situated in lat. 8°. 29'. 0" S., and long. 13°. 8'. 23" E.

The kingdom of Ambrizette, the least influential of the three, is partly located in the province of Sonkie, or Sogno, which comprises all that country from the Rio Zayre, or Congo, to the river Ambrizette, or Birigi, above sixty miles in a direct line from north to south, and stretching nearly the same distance inland from west to east. Although now subdivided into a series of petty states, each affecting to maintain a certain isolated independency, they are nevertheless more or less tributary or subservient to those commercial towns that lie within the coastal districts. Within comparatively recent times the Songhese, by their bravery and warlike opposition, preserved their freedom from the constantly threatened subjection of its more powerful neighbour, the great Congo empire, of which it formerly comprised a portion, and successfully resisted all the artifices and encroachments of the Portuguese adventurers, who, by the aid of missionaries and mercantile establishments, endeavoured to subvert and reduce its government under their authority as an immediate dependency on the province of Angola. Their sordid ambition, however, with an inordinate desire for the accumulation of wealth, proved in the issue an insuperable bar to the accomplishment of their schemes, and it required no great efforts on the part of the aborigines, after a few well-fought battles, to finally expel them from a land which teemed with all the requisites that could administer to their cupidity and love of conquest.

From the memoirs of the Capuchin missionaries, who first settled here in the seventeenth century, an insight into its early history, laws, productions, and customs may be readily obtained, and which possess in a great degree all the essential verifications of faithful observation and elaborate reflection.

The town of Ambrizette lies deep in the centre of a moderate-sized bay, between thirty and forty miles to the northward of Ambriz. In the maps and charts it is usually marked as the town and bay of Juma or Yuma; but this title, upon due inquiry, does not appear to be known to either the white traders or natives of Ambriz—its former name being that by which it is generally understood. This metropolis derives it appellation from that of the circumjacent country, and is divided into two continuous portions, both of which are erected on the elevated table-hills that skirt the beach. In front of them stand the commercial establishments of the English and Americans, and a short distance to rearward may be observed the slave barracoons of the Portuguese. The number of its inhabitants is but trifling, and seldom amounts to more than three thousand. The exports procurable are chiefly gums (copal, and a coarse dark species of gum arabic), copper ore, redwood, and slaves. A remarkable feature in its local government is, that the sovereign powers are vested in a queen, who, by means of her Mafukas or ministers, apparently exercises the regal functions much to the satisfaction of her subjects. The circumstance has been considered to be somewhat rare in this division of Africa, since women are generally held in such low estimation as to be compelled to perform all the drudgeries and hardships that should fall to the share of man. This, however, is not a solitary exception, for instances are on record where several of the interior kingdoms of the Congo have rapidly increased in rank and importance under the wise and able policy of their respective queens.

The natives of Ambrizette are much inferior to, and have not attained that degree of civilization as, the tribes more to the southward, owing, probably, to their circumscribed European intercourse, and the demoralizing effects of an extensive slave traffic.

Betraying thus a contemptuous indifference to the more enlightened usages of the white residents, and being less influenced by those pecuniary advantages that would necessarily ensue from the reciprocal interchange of commodities with a superior race of men, they consequently lose by their apathy in not cultivating those good feelings and interests which impose upon each party obligations that cannot fail of eventually proving lucrative to both. Hence they revert to the opposite extremes, and partake of those despicable vices and barbarities that degrade them to the rank of the least-civilized grades of humanity. Their character, therefore, has become so notorious as to excite no slight apprehension and vigilance on the part of the trader; while their treachery, brutalized habits, revengeful dispositions, and repeated acts of roguery, inspire him with that distrust and caution never reconcileable with those friendly relations and that true faith which, in preference to all other motives, ought to constitute the bond of union in every commercial transaction with the native Africans.

As the customs and physical traits of the inhabitants of Ambrizette furnish but trivial deviations from those of Ambriz, the narrative of them may with propriety be deferred until the delineation of the latter comes more especially under consideration.

The outline of these regions affords to the observer a succession of beautiful and picturesque landscapes, swelling into park-like undulations and gentle eminences crowned by thickets and clumps of trees, and again sloping into fertile vales and deep ravines clothed with a luxuriant pasturage and the splendid vegetation of the tropics; with these ever and anon are mingled detached rocks, and massive fragments of granite, sterile hills, and other bleak tokens of the aridity of the soil, that on the whole offer a peculiar contrast to the more densely-wooded districts that fringe the Congo. Numerous small towns and villages that lie scattered around in various localities satisfactorily attest a flourishing population and abundant internal resources, while well-frequented roads and less public by-paths prominently display their natural character and avocations in the multitudinous trading communications which they carry on with the adjacent nations. Before I quit this preliminary topic, it may be advisable to briefly note two of the frontier towns of this kingdom. The first of which, termed Kayumbah, is built near the point of Kinnada, the northren extremity of the river Ambriz, and is the grand mart for European manufactures and native merchandise of the interior; the other, entitled Mussolongo, is a miserable fishing village, situated at no great distance from the river Lelando, which has acquired some notoriety from its becoming one of the ordinary shipping ports of the Portuguese slave-factors. This river may be estimated to be the northern, as the Rio Ambriz is the southern, terminus of the territories of Ambrizette.

The state of Ambriz, although comparatively insignificant in magnitude to either Musula or Ambrizette, is, nevertheless, in other points of view, far more important and interesting to the speculating voyager; occupying a more exalted and dignified position from the circumstance of its commanding a vast influx of indigenous products, brought from the most remote provinces of the Congo, it can by the greater diversity and value of these articles always attract and secure a permanent connection with the foreign trader, and thus possess a decided supremacy in its markets, which would render nugatory, if not futile, any attempt at competition on the part of its less prosperous neighbours. Independently of these facts, a partial proficiency has been made towards the adoption of a few of those friendly social customs of Europeans, manifested by a certain amenity of deportment, with less of that habitual audacity and jealousy of disposition which characterize the majority of the savage nations that originally composed the more turbulent masses of the powerful Congoese empire.

This country commences at the river Ambriz, which forms its northern boundary, and extends to the south as far as the Rio Losé, about ten miles distant by the route along the seacoast. This latter stream, or rather its bed (for it is barely discoverable in the dry season, owing to the excessive aridity of the climate), also marks the frontier of the districts of Musula. On the east and south-east, the mountain of Mongo Sungho, and part of the course of the Rio Ambriz, with the seven hills of Musula Grande, are the natural barriers to its continuity with the inland regions, while the fruitful lowlands of Musula still further restrict its limits to the southward. The circumscribed tract of land thus comprehended within these territorial distinctions is, however, very thickly populated—a circumstance which, in many respects, will answer as an equivalent fully commensurate to the drawback.

Ambriz originally constituted an integral fifth of the opulent principality of Bamba, being distinguished from the other minor subdivisions by the name of Quitungo. Its chief held the high rank of a duke, and was partly under the jurisdiction of, and tributary to, the Mani-Bamba, or sovereign governor of the whole, who, in general, was some eminent personage belonging to the royal family. When the ancient kingdom of Congo existed in its primitive integrity, Bamba was valued as the key, or essential stronghold of its immense possessions, not only in consideration of its central position, but from the large armies that could be readily levied from a warlike and courageous people, who were greatly dreaded by the Ambundas and other proximate tribes for their predatory incursions.

From the accredited statements early promulgated by the missionary travellers, it appears they were endowed at that period with a strong, athletic, and well-moulded form, combined with great muscular vigour and activity, which rendered them capable of sustaining the heavy fatigues incidental to their protracted expeditions. Their weapons consisted of bows and arrows, spears, &c., with shields, and long, heavy swords of European manufacture, introduced, doubtless, by the Portuguese as one of the articles of traffic for the purchase of slaves, of which they annually exported several thousands to their Brazilian and other recently-established colonies. The viceroy resided at a large town nearly equi-

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distant from the metropolitan city of St. Salvador and the seacoast, the latter being more than one hundred miles apart. Here he maintained, with appropriate ceremonies, his court, which might be said to vie almost in magnificence and grandeur with that of his liege suzercin.

According to oral tradition, and the modern testimony of the inhabitants of Ambriz, after the dismemberment and final dissolution of the seven principalities that comprised the supreme monarchy of the Congo, during the confusion and anarchy that subsequently resulted, their country was invaded by a Portuguese army, who rapidly reduced it under subjugation, and erected a number of fortresses on various eligible sites, by which they could overawe and keep under the necessary surveillance any of their subjects who were inclined to prove refractory. The tyranny and exactions of the invaders at length became so odious as to be insupportable; and under a guerilla system of warfare, resorted to by the natives, the extermination of the Portuguese progressively proceeded, while the garrisons, thinned by disease and death, gradually deserted their posts, which, as they fell into the possession of their enemies, were forthwith razed to the ground. The last fort, which had long and successfully withstood the attacks of the natives, was built on the mountain of Mungo Sungho, adjoining the Rio Ambriz, and was well garrisoned and abundantly supplied with stores. Fortunately, at this emergency, an English slave-ship anchored in the roadstead, the captain of which, upon consultation, advised them to wait until the termination of the sickly season, when the Portuguese, dispirited and reduced by the debility resulting from the endemic maladies of the locality, could offer but a faint resistance. In adherence to these views, a native force, united with a body of white men, landed from the vessel on the first propitious night, and easily surprised and stormed the fortress without the occurrence of a single casualty. From the date of its demolition to the present period, this kingdom has uninteruptedly enjoyed its liberties without molestation, under the more tolerant government of kings selected from among the higher class of chiefs.

A bold and conspicuous promontory of a moderate elevation, with its summits embellished by groups of lofty cacti and a dense undergrowth of brushwood, is, from its somewhat solitary appearance, distinctly recognised as the Point of Ambriz. Scientific observations have placed it in lat. 7°. 51' S., and long. 13°. 6' E. On the continuous hilly crest that trends from it to the southward, and facing the sea, are the factories of the European and other traders, consisting of three English and one American, engaged in a legitimate commerce; and five Portuguese, Brazilian, and French, carrying on a lucrative business in the exportation of slaves. These habitations have been erroneously taken for the portion of a negro town; such, however, are located deeper in land, and are not visible from the point, being enveloped by the umbrageous foliage of the wooded slopes. The title by which this country is designated in the native language is Quatungo, Katungo, or Quating. There are also other appellations, I believe, employed by the surrounding nations, but they are not much in vogue. The chief town is named Kincolo; but Kimpanzah, being the one in which king resides, although considerably less in size, nevertheless, assumes the privilege being considered the metropolis of these petty dominions.

The inhabitants of both Ambriz and Musula, though closely allied in physical formation, language, and other national peculiarities to the tribes resident on the banks of the Congo, yet offer some destinctive features that apparently incline to establish their connection with other races whose external attributes are not altogether in conformity with those derived from a more primitive source. There can, however, be no difficulty in assigning the primary origin of the various tribes which occupy the lowland regions placed in the vicinity of some great river, such as the Congo, which, penetrating an immense distance inland, may be supposed to furnish the ordinary means by which the tidal efflux of population had gradually approached the seacoast. Admitting this explanation to be correct, under the general circumstances of the case, still there are other causes which subsequently tend to create a material modification in those physical characters that exist as the typical illustrations of the numerous negro communities, by which we more clearly define their relative affinity and early origin. Thus, the assimilation of one black race with another may be imperceptibly effected, either by subjugation and consequent colonization, by the liberation and adoption of slaves of foreign extraction, and by intermarriages with distant nomadic tribes. Experience, however, has abundantly shown that, irrespective of those peculiar deviations from an aboriginal standard, the physical elevation or degeneration of different races is, in a great measure, dependent upon the nature and local condition of the country which they inhabit. An analytic investigation into the structural outlines of the natives of Ambriz will point out to an intelligent observer, unequivocal proofs of a dissimilarity from those tribes which have conjointly descended with them from one common parentage. This is well exemplified by that uniformity of organization which yet prevails among the negroes of certain districts in the Lower Congo, who, in consequence of endemic influences, and a less intermixture with other tribes, may be taken as the true typical conformation of the black races in this portion of Western Africa.

Bearing in remembrance the preceding introductory remarks, in reference to those agencies that regulate the development of the human frame under various aspects, I shall now proceed to the delineation of the exterior characteristics of the Ambriz negroes, and the examination of that heterogeneous origin from which they appear to have emanated. Unfortunately, the greatest obstacle to the attainment of this object is the scanty information we possess respecting the customs, localities, &c., of the nine remote inland nations, with whom may be traced a greater or less personal affinity. But it is equally necessary to observe that any precise description of a race of people, which claim their descent, not from one, but a number of sources, must become a matter of no easy accomplishment, particularly if viewed in connection with the present subject, since the regions intermediate between those inhabited by the Congoese to the north, and the Ambundas to the south, with the mingled Kafir tribes to the east, are, in fact, a kind of "debatable land," populated by a variety of offshoots, blended into one national community. In support of these remarks, I shall first enter into a brief detail of those physical differences that constitute the data upon which the succeeding observations are founded; and, secondly, endeavour to describe, as far as my limited resources will permit, those modifications of form which naturally ensue, when branches of various tribes are incorporated under one general denomination.

The most obvious indications of the derivation of the Ambriz people may be simply referred to four separate divisions, viz.:—

1. From the primitive Congoese tribes.
2. From the Anzichi or Bowman tribes.
3. From the Ziagas or other nomadic tribes of the interior.
4. From the Ambundas or inhabitants of Angola.

The physical distinctions of the primitive Congoese are represented by a dark or jet black colour of the skin and complexion, crisp woolly hair, large black eyes, and a countenance whose smallness of features are but moderately impressed with the ordinary negro stamp of thick lips, flat expanded nose, and a low depressed forehead. That placidity of mien, with a harmonious softness or quietude of features, which engenders a pensive and somewhat melancholic expression, almost analogous to the subdued air of dejection that pervades the physiognomy of the Eboe and other tribes to the northward of the equator, may be more or less recognised among the natives of the Congo. This peculiarity, however, is frequently redeemed by the bright and lively lustre of the eyes, when animated by any unusual emotions. Their stature and development of frame, as contrasted with the majority of the negro tribes in Northern Africa, present a rather diminutive and effeminate appearance; nor is there that aspect of dignity, symmetrical rotundity of form, blended with the firm muscular organization so commonly observed among the former races, displayed to any extent among the latter; while, in intellectual endowments, their inferiority is so decidedly manifest as barely to admit the claim of comparison.

It must, however, be taken into consideration that these observations are only applicable to a limited sphere, and require to be somewhat qualified before they can properly appertain to the same native tribes inhabiting the hilly regions adjoining the town of Embomma, or in those villages situated on the banks of the Congo, above the first and succeeding falls of the river. Here the dark hue, and rough dirty aspect of the skin, become less conspicuous, and in their place we observe a more delicate cutaneous tegument comprising the different gradations of yellow, bronze, and deep-brown tints—a diversity of colours that would seem to indicate a modification or change of structure, apparently resulting more from the amalgamation of other distinct races than the ordinary influences of the locality. The countenance in many instances, especially among the females, assumes a more interesting and pleasing character from the softened expression of the features, which is heightened in effect by the more open and unreserved exposition of the feelings, than in the repressed and vindictive dormant passions personified by the harsh and unpleasant negro regularities of face so predominant among the inferior tribes resident amid the swamps near the embouchure of the Congo. These physical traits, in combination with an air of inferior intelligence and corresponding outline of form, almost tend to reveal a line of demarcation between various communities of a common origin inhabiting the same river, but severed from one another only by the peculiar endemic agencies of situation, soil, and elevated position. In our delineations of aboriginal tribes one important error must always be avoided, viz., that of confounding the irregular changes in the colour of the skin, which arise from a hereditary or natural predisposition, with those that simply proceed from an intermixture with other races of a distinct family.

OBSERVATIONS ON THE USE OF THE PERCHLORIDE OF FORMYLE.

By H. HAYNES WALTON, Esq.,
Surgeon to the Central London Ophthalmic Hospital, &c. &c.

I hasten to make public the result of my trials of the newly-discovered anæsthetic agent, chloroform, or perchloride of formyle, which I have used this day in three cases for surgical purposes.

As far as I can judge, I greatly prefer it to ether. I have confirmed most of the results of the experiments performed with it by its talented discoverer. I have used it as Dr. Simpson recommends, "a little of the liquid being diffused on a handkerchief held on the patient's mouth and nostrils." In my operations I was assisted by my kind friend, Mr. M'Clure, and my pupil, Mr. Nurse.

The first case was that of a female, aged forty-five, with external hemorrhoids. Six ligatures were applied for their strangulation. It is useless for me to comment upon the pain with which this operation is attended; it is obvious that it was one well calculated to test the success of this agent in deadening pain. The patient was weak, hysterical, and rather emaciated. About ʒj. of the chloroform poured on the handkerchief was placed over her

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mouth and nostrils. She inhaled it freely and easily, without experiencing any unpleasant sensation. In two minutes and ten seconds she was wholly insensible, when the handkerchief was removed. The voluntary muscles became quite relaxed, the pupils dilated, and quite insensible to light; her circulation was quickened. She remained for fifteen minutes under its influence. Just before she recovered, her circulation became still more rapid, being 160 in the minute, and very feeble. No stimulant was used to rouse her; she expressed entire immunity from pain, and was not aware that anything had been done to her.

Second case, a female, aged twenty-six, a stout, healthy woman, with polypi in the right nasal cavity. ʒss. of the chloroform was inhaled by the mouth; she became insensible in a minute and a half. Unlike the foregoing patient, there was not any relaxation of muscle, but a rigidity as if in spasm. She became sensible in ten minutes. Her circulation also was increased. She was quite unconscious that the polypi had been removed.

The third case was a scrofulous child, aged five years, whose right nasal duct had been obstructed for two years, and in whom, also, there was true fistula lachrymalis. Twenty drops were given. He became insensible in about one minute; his muscles were quite relaxed. He remained under the influence about six minutes, during which time a style was passed into the nasal duct. The little fellow walked away immediately after his recovery in a laughing mood, and saying we had not hurt him; of his own accord he shook hands with all the bystanders.

Remarks.—It is impossible to speak with accuracy—from the manner in which the chloroform was inhaled—of the exact quantity required to render a patient unconscious: for doubtless, a great deal of it evaporated through the handkerchief, probably one-half that was used. Compared with ether its effect is more sudden, lasts longer, and is very much less unpleasant to inhale; being more portable and easier of exhibition are great advantages. When consciousness does return, the complete recovery of the patient is decidedly quicker than when ether is used. I think that it is peculiarly adapted for children, in whom the administration of ether was often a troublesome process. I shall gladly avail myself of the new agent in a few days, when I shall have to remove a very large tumour from beneath the lower jaw. I am certain that the patient, a very nervous and irritable female, would require a great deal of persuasion to induce her to inhale ether; but the less objectionable chloroform will probably be administered without trouble.

I had expected to report a few more cases, that my friend Mr. Greenhalgh had requested me to operate on, but that gentleman having been called away from town, the operations must be delayed.

13, Bernard-street, Russell-square, Nov. 22.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF MEDICINE.

Meeting of Nov. 6; M. Begin in the Chair.

INSTRUCTIONS DELIVERED TO THE SANITARY PHYSICIANS IN THE LEVANT—(*continued*).

Sect. III. The medical certificate.

10. The certificate shall be established upon the sanitary state of the country, the hygienic condition of the vessel homeward bound, and the state of health of the crew and passengers. It shall be terminated by a clear conclusion for a clean or foul bill of health.

Sect. IV. The books.

11. When the sanitary physician shall have been exposed to infection, and will for that reason have abstained from going on board, the certificate of the physician of the ship, or of a practitioner of the neighbourhood, shall be annexed to that of the sanitary physician, stating the existence of the epidemic, and demanding the delivery of a foul bill of health.

12. In order that authenticated and precise documents may be always at hand, several books shall be carefully kept by each sanitary physician, and shall be signed by the resident consul. These books shall be three in number. The first shall contain a copy of certificates delivered, informations as complete as possible on the sanitary condition of the French or foreign ships outward bound, the results of the investigations in the city and its hospitals, and a statistical table of births and deaths. The second shall contain a copy of all the reports forwarded to the Minister of Agriculture and Commerce, or to the authorities; and also of the orders, instructions or other official documents received. The third shall be destined to the correspondence with the other sanitary phycisians.

Sect. V. Correspondence with the Minister.

13. The sanitary physicians shall forward to the Minister a monthly account of the certificates delivered, a report on the state of public health during the preceding month, and every year a very detailed report on the same subject.

14. These annual reports shall be communicated to the Academy of Medicine, who shall draw up a general "résumé," in which the important facts and their consequences shall be clearly brought forward.

15. Should the consuls of other nations require the assistance of the French sanitary physicians, their demand shall be acceded to; all the forms prescribed in the three first sections of these instructions being complied with.

The second part of the instructions, referring to the scientific researches prescribed by Government to its medical agents, enters into considerable detail upon the necessity of instituting a minute topographical inquiry into all subjects connected with the soil, its elevation, exposition; the nature, form, and aspect of the dwellings, hospitals, and cemeteries; the qualtity of its waters, their composition; the state and depth of pits, cisterns, and ponds; the inundations, description of the harbour, &c.; the condition of the atmosphere, its hygrometric, thermometric, and barometric state; the direction and persistency of the winds, &c.; a description of the plants, fruits, and vegetable products of the country; the history of animals and of their diseases;—of the inhabitants, their constitution, functions, professions, diet, habits, government, and religion—each race being isolately considertd. A monthly account shall be drawn up of the reigning disorders, with their most interesting peculiarities, &c. With regard to the plague, three points principally shall fix the attention of the observers: sporadic plague, epidemic plague, and the study of the localities where the disorder spontaneously arises. With regard to sporadic plague, cases shall be taken down with the most minute detail, in order to ascertain as correctly as possible the symptoms, progress, duration, treatment, anatomical alterations, and transmissibility of the disease. Should a pestilential epidemic make its appearance, the precise date of the increase of the mortality shall be carefully noted; the symptoms and anatomical characters attentively studied, and all circumstances connected with the first cases minutely enumerated, in order to discover positively if the disease was or was not imported. The mortality and the periods of the epidemic, the age, sex, class, profession of the patients, shall be correctly stated, &c. &c.

These instructions, signed by the eight members of the commission, were adopted by the academy.

Meeting of Nov. 9; M. Begin in the Chair.

DISARTICULATION OF THE FEMUR.

Dr. Hénot, a military surgeon, read a case of which the following is an abstract:—

A soldier, aged twenty-six, had been for three years affected with a voluminous exostosis, occupying the right femur as high as the trochanters. Fistulæ, symptomatic abscesses, and hectic fever had made their appearance, and the removal of the thigh was deemed necessary. On May 25, ethereal inhalation having been first resorted to, the operation was performed. The flap operation was preferred, with an anterior and a posterior flap, the latter being considerably longer than the former. The patient did not experience any pain, and the wound was united by six sutures; primary adhesion took place in the greater part of its extent. The ligatures fell from the 18th to the 44th day, and on the 90th day after the operation, cicatrization was completed. The patient was presented to the academy: the stump was round and muscular; the scar, 22 centimètres (eight inches) in length, was straight, solid, and situated in front in such a position as not interfere with the means of prothesis employed.

THE SALT MARSHES OF FRANCE—A REPORT BY DR. MÉLIER.

The tax on salt in France is a considerable source of revenue to the Government, indeed, so great as to be entirely out of proportion with the value of the salt itself; the kilogramme of salt, value one centime, paying to the Treasury thirty centimes duty. In England, salt marshes are not now in use, because salt mines and springs furnish salt at a more economical rate. Indeed, the dampness of the climate would constitute an almost insurmountable obstacle to its extraction from sea-water; but it is not so in France, particularly on the coast of the Mediterranean, where that branch of industry has, under the severe inspection of Government, acquired a considerable development. Upwards of 100,000 workmen are employed in the trade; and, in order to ascertain the influence of these marshes upon their health, the Minister of Commerce requested the academy to examine into the matter and to forward a report, which M. Mélier now presented to the meeting.

The academy, said M. Mélier, was consulted only upon the industry of salt marshes, that is, exclusively upon the extraction of salt from sea-water, by spontaneous evaporation on the surface of the soil. The Minister inquired whether such marshes were insalubrious or not, and to what extent the establishment of new ponds might be authorized without danger to public health? In order to answer these questions, M. Mélier thought it necessary to give a description of the marshes which he had visited in all their details. A saline marsh consists merely of a vast surface destined to the evaporation of sea-water; and this surface is divided into a series of compartments in which the water is successively admitted, becoming more and more concentrated, until at last it deposits its salt. The size of the marsh is variable; some extend to several hundred hectares. In general it is more or less elevated above the level of the sea, and the water must be raised by machines; on the ocean, the reverse is observed—the ponds are lower than the shore, and the water naturally flows in by the action of the tide. On the coast of the Mediterranean the whole establishment consists of three parts: the *heaters* (chauffoirs), vast ponds in which the water directly enters from the sea; the *needles* (aiguilles), are narrow canals for the circulation of the waters; and the *tables* are ponds less deep than the first, in which the crystals are finally deposited. During its sojourn in the heaters the water becomes more and more concentrated—a difference which is easily judged of by the use of the areometer; but long before this instrument marks 25°, some of its salts are deposited—the carbonate and sulphate of lime, which are carefully removed, as they might injure the purity of the salt. At 35° the chloride of sodium begins to crystallize, and it is time to bring the water upon the tables. The layer of water (two inches in depth) is daily renewed, the salt being promptly deposited and accumulating progressively from April to September, during the whole course of the summer months. The mother water is daily removed, and M. Balard has succeeded in utilizing it in the following manner:—Besides the salts which we have already mentioned, sea-water contains also sulphate of magnesia, hy-

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drochlorate of magnesia, and sulphate of potass. These salts remain in the mother waters, and by placing them at a given moment in contact with a certain amount of sea-water, saturated with chloride of sodium, a layer of crystallized sulphate of soda is obtained, perfectly pure and white. Thus the mother waters, formerly an inconvenience, are now a source of revenue, which promises to exceed the value of the fabrication of the chloride of sodium. When the waters have attained a certain degree of concentration, 23° for instance, a curious phenomenon is observed. They acquire a rose colour, which gradually deepens, and at last presents the deepest shade of red; at the same time a very marked odour of violets prevails, and still persists for several months in new salts. Before the invention of the areometer, these changes of colour served to indicate the degree of concentration of the waters; their cause was discovered some years since by M. Joly, of Toulouse. He showed that both colour and odour were due to the development of an infusory animalcule, the monas dunalii.

(To be continued.)

HISTORY OF THE ILLNESS OF DANIEL O'CONNELL, AND OF THE POST-MORTEM EXAMINATION OF HIS BODY. BY DR. A. LACOUR.

(*Journal de Médecine*, Lyons.)

Daniel O'Connell, born in Ireland, in the county of Kerry, in the year 1775, was endowed with a vigorous constitution, which had been at last shaken by fifty years of incessant labour and struggles. His last illness did not make its appearance suddenly: doubtless, the well-known events of his latter years, and the misfortunes of his country, contributed to predispose his brain to congestion; but that predisposition was considerably increased by the imprudent suppression of a sort of infirmity which long habit had rendered necessary to his health. From his youth O'Connell was subject to hemorrhoids: the almost periodical discharge of which they were the source constituted a salutary derivation to the incessant excitement kept up in his brain by the agitated life of the tribune, and increased by the stimulating diet required by his energetic temperament. O'Connell had more than once expressed a wish to be cured of these piles; their suppression was imprudently advised, about two years since, by an empiric, and with medicines of which we could not ascertain the composition. At that period first appeared giddiness, tinnitus aurium, headache, and diminution of intellectual activity. Absorbed by his labours, O'Connell did not at first perceive, himself, the decline of his health; but, although he soon became aware of the diminution of his strength, he came to London in February, 1847, for the purpose of resuming his seat in Parliament. He was advised by several eminent London physicians, who considered his case one of temporary fatigue, the use of port wine and of meat several times a day, also the cessation of all political labour, and a speedy change of scene. O'Connell then determined to begin his pilgrimage to Rome, a long-cherished project, which he considered as the consecration of his militating life. Towards the middle of March he set out upon his journey, accompanied by his youngest son and his friend the Rev. Dr. Miley. From London to Paris the disease had made notable progress, the appetite had diminished, the step was less firm, the intellect more dull. In Paris, O'Connell consulted Professor Chomel and Dr. Olliffe, who were of opinion that the weakness of the patient was the result of slow congestion of the brain. Hygienic prescriptions only were made. The diet was to be of a less tonic nature and the mind amused, the journey to Rome answering perfectly the latter indication. The illustrious patient left Paris on March 29, and on his road to Lyons met with most severe weather. On examination, Professor Bonnet found the face highly coloured, the pupils contracted, the pulsation of the heart natural, the pulse small and regular. The chest was less sonorous to percussion in the superior part of the right side, and on auscultation mucous and sibilating rhonchi were heard in the same region. The left side of the chest was perfectly healthy. The appetite was destroyed, a vague sense of uneasiness existed in the abdomen, and the bowels were confined, in spite of the use of several English laxative pills. The intellect was perfectly clear, but inactive, and the mind was continually preyed upon by melancholy preoccupations. The movements of the arms were slow, and the right arm shook continually; the right hand was cold and difficult to warm. The left foot was colder than the right. In walking the steps were slow and unequal. Professor Bonnet diagnosed a tendency to softening of the brain—a pulmonary catarrh, and expressed an unfavourable opinion with regard to prognosis; he advised a slightly tonic diet, the use internally and externally of aloes for the purpose of recalling the piles, and antimonial medicines for the pulmonary disease. The same opinions were adopted by Dr. Viricel, and on April 22 the patient left Lyons, accompanied by the writer of the case (Dr. Lacour), who continued the use of the antimonials and of the aloetic suppositories. At Avignon, where O'Connell arrived on the 26th, an aloetic pill was exhibited, and the piles became swollen, and bled slightly. From that time the improvement in health and spirits was evident; the redness of the face ceased, and O'Connell took an active part in all conversations. The improvement was recognised by all who surrounded the Liberator, and the continuation of the journey to Rome was resolved upon. On the 2nd of May he arrived in Marseilles; the cough had entirely ceased, the appetite was better, the strength had somewhat returned. In the evening, O'Connell conversed with a degree of animation which he had not shown since he left England. On the 5th he embarked, and arrived at Genoa on the 6th. During the two first days of his sojourn in that city, his condition continued to be most satisfactory; he had taken long walks, which had not inconvenienced him in the least. On the third day, O'Connell complained of a violent headache; the speech was hurried, and movements more energetic. Constipation being obstinate, a laxative injection was presented, and its result was to diminish the cerebral congestion. The following night was sleepless, and in the morning a consultation was called, in which Drs. Baretta and Duff observed that the cough had returned; diarrhœa had shown itself in the night, together with almost continual drowsiness, redness of the face, headache, slight delirium, difficulty of pronunciation, strength of the pulse, and dorsal decubitus. Leeches were applied to the perineum, and ten grains of calomel were exhibited in five doses. In the evening O'Connell was much better, but the next day, the symptoms having returned, leeches were applied to the neck. On the 13th, the difficulty of swallowing was almost insurmountable, and speech was hardly distinct. Dr. Vivian saw the patient on the 14th, and, symptoms of compression of the brain evidently increasing every hour, a small quantity of blood was removed from the arm. During the night a violent crisis took place, which threatened an early catastrophe; the last sacraments were administered, and the illustrious patient expired at thirty-six minutes after nine on the evening of the 15th.

On the 16th the body was conveyed to the Hospice des Incurables, where it was placed in an iced bath. On the 17th, although thirty-six hours had elapsed since death, no signs of putrefaction were apparent. O'Connell having expressed a wish that his heart be carried to Rome, no choice was left between the ancient and modern modes of preservation; and, permission having been granted to make a necroscopic examination of the body, it was performed by M. Balleri, chief surgeon of the hospital, in presence of Messrs. Baretta, Duff, and Lacour.

External Habit.—High stature, remarkable proportion between the limbs and body, considerable loss of flesh, cadaveric stiffness, no maculæ on the skin.

Head.—The dura mater was in its natural condition; adhesions existed between the two surfaces of the arachnoid; in a few fissures, the pia mater had also formed adhesions so as to unite several convolutions. The pia mater was considerably injected with blood. The consistency of the brain was in general tolerably firm. The pia mater was easily detached except upon the lateral portion of the right anterior lobe, where the membrane, on being removed, carried away with it a thick layer of cerebral substance. In a space which might have contained a walnut, the pulp of the brain was transformed into a whitish pap, which did not contain a single drop of blood. Around this ramollissement the brain gradually regained its natural firmness; in all its other parts the cerebrum was gorged with blood, and, as it were "sablé." No other alteration was detected, notwithstanding the minutest dissection.

Thorax.—The left lung was perfectly sound; the right lung had formed in front intimate adhesions with the pleura. The parenchyma of the viscus was slightly congested; the internal surface of the larynx, trachea, and bronchi was intensely red, and several divisions of the bronchi were considerably dilated. The heart was healthy; several ossified spots were noticed in the arch and abdominal portion of the aorta; also, in the femoral arteries.

Abdomen.—The digestive tube was throughout the seat of a very marked injection. The large intestine was distended by the presence of hard fæcal matter; the spleen, considerably enlarged, was quite softened. The other organs were perfectly healthy.

POSTHUMOUS DELIVERY.—At the Society of Emulation of Lyons, the following singular case was related by Dr. Gromier:—He had been summoned by the magistrates to perform, at some distance from Lyons, the exhumation of a woman who was said to have died a violent death. On opening the tomb it was found that the woman had been interred in a state of pregnancy, and that both the child and the placenta had been expelled from the womb after interment.

At the meeting of the Academy of Sciences of Nov. 8, only two communications of any interest to the medical profession were made. One by M. Tizon, student in pharmacy at the Hospital of Algiers, who proposed to colour arsenious acid with the red sulphuret of mercury, and to give it an odour by the addition of creasote, in order that it may readily be distinguished even by inexperienced persons from flour, salt, sugar, &c., with which it may be confounded, and to prevent the frequent and fatal mistakes which frequently occur. The other communication, by M. Blanchet, referred to a new instrument of his invention, which he calls a coumètre, destined to measure the different degrees of deafness of persons suffering from that infirmity, and to judge of the gradual improvements produced by the various methods of treatment employed.

D. M'CARTHY, D.M.P.

Treatment of Chronic Cystitis by Injections of Nitrate of Silver.—Dr. R. L. Macdonnel, in "The British American Journal of Medical Science," recommends in strong terms the injection of a solution of nitrate of silver in chronic inflammation of the bladder, a disease which has proved very refractory to other remedies. He mentions the case of a gentleman who had suffered for some months from this disease: it was marked by frequent desire to pass water, accompanied by heat and scalding, violent straining, pain in the region of the bladder, above the pubis, and in the perineum, and a constant feeling of heat and weight in the lower part of the abdomen. These symptoms gradually increased in severity. When first seen by his medical attendant, fully one-half of the fluid passed from the bladder was pure pus; and, after repose, a deposit of blood globules was found to intervene between this and the supernatant urine—this being highly alkaline, fetid, and albuminous. Examined microscopically, it exhibited some scales of nucleated

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epithelium. There were also frequently mixed with this, tenacious masses of lymph, varying in length from half an inch to an inch, and entangling a quantity of earthy matter. The bladder was injected with a solution composed of eight grains of lunar caustic, two drachms of tincture of hyoscyamus, and four ounces of distilled water. The injection caused little inconvenience, except that of inducing a strong desire to empty the bladder, which was prevented by compressing the penis. The patient gradually improved, and the strength of the lotion was increased to double, when the improvement became very rapid, and health soon returned. The method of injection found most efficient is the following:—The patient, being placed either in the erect position or on a sofa, a gum-elastic catheter, about the size of No. 9 or 10, is introduced, and water at the temperature of 98° F. is injected through this into the bladder by means of a caoutchouc bag or a syringe. After the bladder has been completely cleansed, the solution of caustic, being heated to the same degree, is to be introduced in a similar manner, and allowed to remain there for about one minute, care being taken, by compressing the urethra, to prevent its being forcibly ejected by the straining which is certain to be produced. The quantity of water in solution should never exceed four ounces, as in chronic inflammation the viscus is seldom capable of holding more than a few tablespoonfuls; and, consequently, a larger injection would act injuriously in two ways—by over distending the organ, or by passing up into the ureters. The patient is then ordered a warm bath, and, should the urine become bloody or mixed with shreddy concretions, he should use frequent fomentations or anodynes. But these symptoms seldom last more than a few hours. The advantages which the solution of nitrate of silver possesses over that substance in a solid form are:—The patient does not suffer from retention of urine; it can be employed in various strengths from one to four grains, or even stronger, if necessary; and the application comes in contact with the entire diseased surface. It is, moreover, easily employed by an inexperienced operator, and it cannot possibly be attended with any risk.

Nosology of Aphthæ.—Dr. Eisenmann had been consulted in the case of a child, four months old, labouring under the usual signs of acidity of the primæ viæ, with a general aphthous state of the mucous membrane, and twitching of the facial muscles. The symptoms were temporarily relieved by the use of medicines, but yielded completely only to a change of diet; milk paps being interdicted, and replaced by acorn coffee with a little milk twice a day, then soup and bread, and sugar and water as drink; as a remedy, the tinctura thea aquosa with carbonate of potash. Under this regimen, and with two hours' exercise in the open air daily, the child soon got well. The child belonged to the upper ranks, and lay under no suspicion of scrofula; yet it had a small scrofulous-like swelling on one of its fingers, which disappeared along with the aphthæ. In considering the relation between the acidity of the primæ viæ and the aphthæ, the results of the investigations of Liebig and some others are referred to, viz., that microscopic plants of the lowest grade arise in albumen sufficiently diluted, under the influence of an acid, and exposed to the atmospheric air. Now, the aphthæ consists of such plants arising under similar conditions. The blood contains too much water, as a consequence of the bad digestion and defective supply of other materials; a portion of the acid of the chyme passes, doubtless, with the chyle into the blood; the necessary atmospheric air of oxygen is supplied by the respiration; the fungi may then arise in this way:—The abnormal blood may so work upon the centrifugal or motor nerves of the predisposed mucous membrane of the alimentary canal, as to produce congestion and exudation, in which, under the influence of atmospheric air, the germs of the fungi may be formed and developed after exudation. With respect to the scrofulous-looking swelling on the finger, Fuchs has shown that in scrofula a copious production of fungi takes place; aphthæ and scrofula may then be allied affections. Whether the damp air and dwellings in which scrofula principally develops itself react upon the digestive organs, or causes the production of morbific fungi in some other manner, cannot now be decided.

Internal Hemorrhage during Pregnancy.—M. Plainchant has communicated to the Academy of Medicine, Moulins, the following case:—A strong, healthy, although lymphatic, woman, aged forty-seven, the mother of several children, had arrived at the sixth month of her last pregnancy in her usual good health, when, one evening, she was attacked with pains in her loins. A midwife was called in, who, on examination, found nothing to indicate approaching miscarriage. The pains, however, became more frequent; she had fainting fits; the skin became cold, the pulse thready, and the patient sank calmly in five hours after the first attack. Nothing had escaped from the vagina. On examination after death, the uterus was found very large and firm; an incision was made into it, and the waters escaped without anything unusual being perceived. The child was well formed for a six months' fœtus; the umbilical cord was was uninjured; the placenta was connected with the fundus uteri by a small part of its substance, but was separated to a large extent from it by a quantity of blood to the amount of about seventeen ounces. The uterus was very red at this part, but showed no lesion of its texture; the fibrous bodies, each the size of a large nut, were found implanted in the wall of the uterus of the right side.

Treatment of Inflammatory Affections of the Brain.—Mr. Solly says, in the treatment of these affections the following principles must be attended to:—1. There is no time to be lost, even minutes are of value. 2. Inflammation of the brain being a depressing disease, general bloodletting is not often admissible. 3. Though this may be attended with benefit at the time, the good derived is seldom permanent. 4. Local bloodletting by leeches and cupping is generally useful, and especially in cases of insomnolescence, arising from abnormal action of the brain. 5. In cases of insanity, where opium has failed to produce sleep, leeches and cold applications generally will; and, if they do not, it is strong evidence that the excitement arises from hyperæmia, and not from anæmia, as in that of delirium tremens. 6. Aconite and digitalis are the best sedatives, especially when combined with mercury. 7. When it is advisable to salivate rapidly, raise the cuticle by boiling water, or a similar escharotic, and dress the surface with strong mercurial ointment. 8. Always commence the treatment with a brisk mercurial purgative. 9. Soothe the patient's feelings in every way. 10. Never leave anything that is disagreeable to the patient to be done by a nurse or attendant, such as the application of leeches, &c., but persuade him to have them applied. 11. Never lose your patient in the treatment of a chronic case, or try to hasten the cure by increasing the doses. 12. When it is considered necessary to continue the use of mercury for a lengthened period, combine tonics with it.

Treatment of Laryngeal Disease by the Nitrate of Silver.—In chronic affections of the larynx and pharynx, Dr. Horace Green, of New York, says that he has ordinarily employed a solution of lunar caustic of the strength of from two to four scruples to an ounce of distilled water. When, however, there are found extensive ulcerations of the epiglottis, or about the opening of the larynx, ulcerations which it is desirable to arrest at once, he has not hesitated to apply to the diseased parts a solution of double this strength. But one or two applications of this solution should be made at one time; ordinarily, however extensive the lesions may be, it will not be necessary to employ a solution of greater strength than one compounded of four scruples of the salt to an ounce of water. On the other hand, it has been found that one of less strength than of from forty to fifty grains to an ounce of water will have but little effect upon a diseased mucous surface where ulcerations exist. In cases where it becomes necessary to cauterize the interior of the laryngeal cavity, the aperture of the glottis should not be passed at once; the part should be *educated* by applying the solution daily for several days to the faucial and pharyngeal region, to the epiglottis, and about the opening of the glottis. The exquisite sensibility of the lips of the glottis is, in this manner, in a good degree overcome; and the instrument may be passed into the larynx without producing much irritation. The instrument found most convenient is one of whalebone, about ten inches in length, curved at one end, to which is securely attached a small piece of fine sponge. The extent to which this rod is to be bent must be varied according to circumstances, for the opening of the glottis is situated much deeper in some throats than in others; but the curve found suited to the greatest number of cases is one which will form the arc of a quarter of a circle whose diameter is four inches. The patient's mouth being opened wide, and his tongue depressed, the sponge is dipped into the solution to be applied, and, being carried over the top of the epiglottis, and on the laryngeal face of this cartilage, is suddenly pressed downwards and forwards, through the aperture of the glottis, into the laryngeal cavity. This is followed by a momentary spasm, by which the fluid is discharged from the sponge, and is brought into immediate contact with the diseased surface. If the patient, on opening his mouth, take a full inspiration, and then be directed to breathe gently out at the moment in which the sponge is introduced, the irritation will be comparatively trifling.

Retroflexion of the Uterus.—Dr. Beatty, in "The Dublin Quarterly," remarks, that the part of the uterus at which this deflexion takes place is that at which the neck and body of the organ join; and the angle at which the body is bent upon the neck varies, being sometimes very acute, and at others more obtuse. The displacement is most commonly the result of pregnancy; it could scarcely, if at all, occur during gestation, owing to the fulness and tension of the uterus; but in most cases it occurs subsequent to delivery. Velpeau saw fifteen cases in which it occurred in the unimpregnated uterus, but after parturition. Dr. Davis is of opinion that this incurvation may have occurred congenitally, as the effect of an originally imperfect development, or as a result of disease, either of the uterus itself, or of the organs in immediate contiguity to it; but he gives no cases of either kind. This displacement is very different from retroversion, in which the os and cervix are thrown upwards; but in retroflexion these parts maintain their natural position, while the fundus is thrown downwards. The time at which this displacement occurs is most probably immediately after delivery, when the uterus is still large, but soft and pliable; it is likely, however, at the time of its occurrence, because the very urgent symptoms do not manifest themselves until the woman rises from her bed, and resumes her usual employments; then it is that gravity causes the pressure to be felt by the surrounding viscera, and the symptoms declare the nature of the malady. It generally happens, however, that the sensations are endured for a long time without complaint, in the hope that they will subside as the woman gains her strength. The organ, by this delay, becomes fixed in this unnatural position; a certain amount of chronic inflammation alters its tissue, and moulds it into its new shape, rendering all attempts at restoration alone by mechanical means fruitless. A more favourable prognosis may be formed, when the cases are recent, from the ease with which they can be rectified. The means to be adopted are those employed to restore a retroverted uterus; and, after the organ has been placed in its proper position, great care should be taken to keep the patient lying as much as possible on her face, until the uterus has shrunk to its original size. Some practitioners consider chronic deflexions totally in-

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curable by any efforts of art exclusively, without the aid of nature, as exerted during the changes and developments which are the special attributes of pregnancy. The altered conditions of the tissue and texture must be attended to, and the chronic inflammation must be combated by appropriate treatment. The symptoms attending this complaint are dragging pains in the loins, groins, and back, aggravated by walking or making any violent effort. Pain and difficulty in defecation, and during the attempt a sensation is experienced as of something blocking up the passage and preventing the exit of the contents of the bowels. Sometimes there is an irritable state of the bladder, also menorrhagia and leucorrhœa to a considerable extent.

Cause of Puerperal Fever.—Dr. Scanzoni, of Prague, arrives at the following conclusions in reference to this disease:—1. That a rawness of the internal surface of the uterus does not constitute the sole and only predisposing cause of peuerperal fever, but that this consists in a peculiar constitution of the blood. 2. That this is indicated by an increase in the quantity of fibrine. 3. When this increase becomes excessive in a high degree, it constitutes the primary cause of the disease; or it is, in short, in itself the essence of genuine puerperal fever. 4. The genuine disease is characterized by the fibrinous type; no other type is genuine, but can only be developed secondarily out of the fibrinous. 5. Hypinosis of the blood gives immunity against that form of puerperal disease accompanied by fibrinous exudation; it gives but little protection against the suppurative, and none against the typhoid, form. 6. The hyperinotic form of the disease frequently, during epidemics, passes into the purulent or into the typhoid form. 7. The two last forms may be developed either primarily in the blood, or secondarily by the absorption of pus. 8. This absorption can take place from suppuration on the surface, in the tissue, or appendages of the uterus, or from the placenta. 9. The cases which run the most rapid course are those which are the result of a primary disease of the blood; the less acute are the result of absorption.

Acute Glanders in a Female Mattress-maker.—A woman, aged forty, was admitted into the Hospital Necker, Paris, who had been ill ten days. She had been first seized with neuralgic pain of the right side of the head, which was successfully treated with preparations of belladonna; then with an intercostal neuralgia, quickly followed by an acute sciatic pain on the left side, particularly severe in the calf of the leg: this was quickly removed by a blister sprinkled with morphia. Then the left knee became painful, the pain being soon accompanied with redness and swelling, and now some delirium arose. She had never anything to do with horses, though her husband was a hackney-coachman. She was accustomed to card wool and prepare horsehair. The day after her entrance into the hospital she had fever acute; pulse frequent; eyes injected; she returned correct answers when questioned; there was much delirium in the night; there was redness, tumefaction, and excessive pain of the left knee; a red fluctuating tumour, the size of an olive, on the left hand, near the lower extremity of the second metacarpal bone. On the third day, the twelfth from the commencement of the attack, the delirium continued; the skin was dry and somewhat jaundiced; on the middle of the right cheek there was a vesicle with an inflamed base of a violet colour, resembling a malignant pustule; some red spots, and some small buttons, like those of smallpox, were spread over the thighs and other parts of the body, also some small, hard tumours, with a violet tint of the skin. On the thirteenth day the pustule on the face had a carbuncular appearance, and the skin was gangrenous for a small space around; there were numerous pustules of irregular size on the face, eyelids, and extremities; no restlessness—profound stupor. Next day she sank. On the *post-mortem* examination there were found on the mucous membrane of the nasal fossæ some superficial ulcerations; in the knee-joint a large quantity of pus; in the subcutaneous tumours, pus mixed with blood; the gangrenous spot on the face was but superficial beneath; the cellular tissue was infiltrated with a yellowish serosity to a considerable depth. The other parts of the body were not examined. A lancet was charged with some sanious matter from the gangrenous spot, and adjacent abscesses, with which a horse, between eight and nine years old, affected with anchylosis, but otherwise healthy, was inoculated. This horse died on the seventh day after, of well-marked acute glanders.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Nov. 9.

J. M. Arnott, Esq., F.R.S., President.

This was the first meeting of the session; the library was crowded with members and visitors.

A paper was read by Mr. B. Phillips, entitled, OBSERVATIONS ON THE DIAGNOSIS AND THE TREATMENT OF INTESTINAL OBSTRUCTION DEPENDENT ON INTERNAL MECHANICAL CAUSES.

The object of the paper was to show the great difficulties which are experienced in the diagnosis of the causes and the seat of an internal obstruction—the great mortality which occurs in such cases—and to consider the question, how far are we justified in resorting to surgical operation for their relief? The author had not based his observations on his own experience alone, but had endeavoured to elucidate the subject by a careful consideration of 169 cases, in which obstruction was more or less complete. He first stated the particulars of cases exemplifying several varieties of these affections, for the purpose of showing the great similarity of the symptoms which were present, under very different circumstances. After setting forth the more ordinary symptoms, he entered upon inquiring whether there be any combination of those symptoms by which particular varieties of obstruction are characterized, so that the plan of treatment may have reference to the cause of the obstruction. The result of a careful analysis of symptoms and cases went to satisfy the author's mind that no arrangement of symptoms is so definite or constant as to make a diagnosis of the cause of obstruction conclusive. Supposing an operation to be resorted to, it is of course very desirable to ascertain the seat of the affection; and here the difficulties are not less formidable than those which occur in attempts to determine the cause of the obstacle. The history of the case may give assistance in some instances, the existence of a tumour in others, and the distended intestine in a few cases: but in most instances we shall be left in doubt. The author then stated the results—unfortunate enough, certainly—of ordinary treatment; and concludes that there are cases in which recourse to surgical operation is justifiable. He showed that the abdominal walls have been cut through in more than fifty cases, for the purpose of affording relief, stating the particulars of many, and the results of all; and showing that of those operations twenty-four appear to have terminated favourably. He showed, further, that some of those operations were undertaken with a view to seek the obstacle and to remove it, but in very few instances has the object been accomplished, the ordinary result being the establishment of artificial anus; and he regarded this as the only practicable result of operation in cases which do not prove fatal.

Mr. Wade related the case of a child, five years of age, to whom he was called about four hours before death. The little patient had from birth been the subject of obstinate constipation, and three weeks previously to death had been seized with pain and tenderness in the abdomen, from which he recovered under proper remedies, and was so well the day before he died, as to be able to trundle his hoop in the Park. In the night he was suddenly seized with acute pain in the abdomen, attended by vomiting and other symptoms of strangulation. He died, and, on examination, several folds of ileum were found in a state of strangulation from being encompassed and bound tight by a broad band, about three inches in length, attached to a diverticulum of the ileum, and connected with the mesentery. In another case he had seen a woman, three days before death, who had had no relief in her bowels for six days previously. The abdomen was not painful, but tympanitic. Medicines afforded no relief; and after death, which occurred at the end of four days, a stricture of the transverse arch of the colon was discovered, about half an inch in length, and puckered in appearance. In neither of these cases did the operation of opening the cavity of the abdomen seem to him justifiable.

REVIEWS.

On the Causes and Treatment of Abortion and Sterility; being the Result of an extended Inquiry into the Physiological and Morbid Conditions of the Uterus, with reference especially to Leucorrhœal Affections and the Diseases of Menstruation. By Jas. Whitehead, F.R.C.S., &c. London: J. Churchill, 1847; pp. 426.

There is scarcely a subject within the whole range of medical science which presents greater features of interest than that which relates to the female organs of reproduction. While the attention of physiologists has from an early period been directed to the study of phenomena which manifest themselves in connection with these organs under the various conditions in which they are found, it is only within a few years that investigations have been so scientifically conducted as to afford an amount of knowledge infinitely valuable to the medical practitioner in the treatment of the various diseases to which the organs are especially liable. The present generation is distinguished for the circumstance of having adopted a new method of discovering abnormal states of the uterus by the use of instruments which bring parts within view whose condition formerly was only ascertained by manual examination. The pathological states of the organs of reproduction have, in consequence, become better known, and new modes of treatment adopted to remove diseases when they have been discovered to exist. To the French medical practitioners belong the honour of having first used the speculum to ascertain the nature of morbid changes which affect the vagina or uterus; while our own countrymen, following closely in the footsteps of their Gallic neighbours, have advanced the cause of science and humanity by their zealous and successful efforts.

It would be improper here to notice all the advantages resulting from the use of the speculum in the investigation of disease; but we cannot avoid remarking how singularly beneficial it has been in affording to the medical practitioner a knowledge of the causes of abortion which has led to the use of means frequently successful in preventing so serious an occurrence. It is common to suppose that miscarriage is generally produced by external violence, the use of improper medicine, or mental perturbation; yet it is surprising, in a healthy condition of the gravid uterus, what shocks it will suffer without taking on the action necessary to expel its contents. Most of the abortions occur without the women themselves being able at all to account for the premature event; while the speculum has brought to view certain states of the uterus which at once would account for its setting up an abnormal action. The circumstance of a leucorrhœal discharge being a leading feature in those cases of premature expulsion of the ovum, where it seemed impossible to assign any known cause for the event, induced Mr. Whitehead to examine the uterus with the speculum; and he tells us that he "almost invariably found the existence of disease of this organ sufficient in extent to bring the other symptoms under the arrangement of sympathetic disturbances merely." The frequent existence of local disease being thus ascertained, a series of examinations were insti-

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tuted, involving an inquiry into the history of menstruation as connected with abortion, and the results are stated.

The directions which are given for using the instrument are well worth the attention of those who prosecute specular inquiry, or are called to manage local treatment. It is recommended that the patient should recline "on her left side upon the edge of a bed or couch, in the same position as that preferred in this country during the process of parturition. The instrument is introduced without ocular aid, and no part whatever of the person is exposed. The diseased organ is at once brought into view, and the remedies are applied with facility, and without occasioning the least suffering.

In the chapter on menstruation the discharge is spoken of as recurring monthly, and lasting from three to seven days. Deviations, however, are by no means uncommon, without the general health becoming affected. Five hundred and twenty healthy females were examined in order to arrive at correct data how far erratic menstruation was consistent with a state of health. Of this number, three hundred and fifty-nine had always exhibited great regularity; while of the remaining one hundred and sixty-one cases denominated *irregular*—in fifty-one, menstruation recurred every lunar month, the discharges being prolonged every third or fourth return for some days, with a difference in the quantity; thirty-eight menstruated every lunar month generally, except every third or fourth time, when it occurred some days earlier; fifteen passed three weeks only between each period, with the exception of the third or fourth time, when it was usually a month; fourteen, every twenty-four days, with an occasional extension to twenty-eight; five, every five or six weeks, with an interval sometimes of a month only; two, every eighteen days, with an aberration now and then; one, every lunar month, the middle of the third interval being marked by a discharge similar to the catamenial; two, every fourteen days, in one of whom the discharge continued from seven to ten days, while the other had it only two days, and sometimes but a few hours; one, monthly, but every third time missed the period; while in thirty-two the irregularity was so great as to afford no means of calculating the periods of recurrence. Marriage sometimes effects a considerable change, the discharge either becoming larger in quantity, of longer duration, or more frequently repeated.

The quantity of blood secreted during each menstrual period is variable, and our author considers that an elevated temperature affects the amount and period of its duration. As regards the properties of the menstrual fluid, its great distinguishing characteristic is that of not coagulating, owing to its admixture with vaginal mucus, in the acid of which fibrine is freely soluble. Numerous physiologists, however, have been unable to detect any fibrine; and this was the case in a specimen examined by Dr. Letheby, obtained by the section of an imperforate hymen in a girl seventeen years of age. The vaginal mucus and the menstrual fluid always exhibit acid properties; the secretion of the uterus is alkaline. From numerous observations it has been ascertained that the menstrual secretion issues from the interior of the uterus, and during this time the vaginal membrane always becomes suffused, but never exudes blood. The ovaries perform an important office in connection with menstruation, for where these do not exist the function is never discharged.

The period at which menstruation commences is dependent upon a variety of causes; and is, therefore, different in different individuals. The following table shows the age at which puberty was accomplished in 4000 individuals.

At the age of	10 years,	9	first menstruated.
,,	11 ,,	26	,,
,,	12 ,,	136	,,
,,	13 ,,	332	,,
,,	14 ,,	638	,,
,,	15 ,,	761	,,
,,	16 ,,	967	,,
At the age of	17 years	499	first menstruated.
,,	18 ,,	393	,,
,,	19 ,,	148	,,
,,	20 ,,	71	,,
,,	21 ,,	9	,,
,,	22 ,,	6	,,
,,	23 ,,	2	,,
,,	24 ,,	1	,,
,,	25 ,,	1	,,
,,	26 ,,	1	,,

Average age of the first menstrual period, fifteen years and seven months. A precocious puberty is commonly observed in those possessing the sanguine and bilious temperament, the child-bearing period short but fruitful, and menstruation stopped at from thirty-seven to forty-seven years of age. In the lymphatic and melancholic constitution, menstruation comes on at a late period; it is often tardily and with difficulty accomplished. In the nervous temperament it is attempted early, commences with difficulty, and, when established, is frequently accompanied with disturbance of a very troublesome kind.

Mr. Whitehead is opposed to the doctrine, which has been believed very extensively, that factory employment has a particular tendency to induce premature development of the sexual organs, and that a precocious womanhood is more frequently witnessed among the manufacturing population than among other classes of people. Having ourselves had considerable opportunities of investigating this subject very closely, we perfectly agree with our author in the conclusion at which he has arrived. The subjoined statement will show that factory employment has rather a contrary effect to that which is commonly supposed.

"Of the 4000 individuals before quoted, 2127 were employed in mills, warehouses, and places connected with various processes of manufacturing, at the period of puberty, and for a length of time previously to its advent. Their collective ages amounted to 33,296—affording an average of *fifteen years* and nearly *eight months*; of whom 511, or 24·02 per cent., suffered under disease consequent upon undue retardation of the functional changes at the commencement. The remainder, 1873 in number, included all that were otherwise circumstanced; as domestic and farm servants, hawkers, sempstresses, and shopwomen; together with a number of educated females, not necessarily engaged in any pursuit, except school exercises. The sum of their ages was 28,982, giving *fifteen years* and about *five months* as the average age of puberty; and 376, or 20·02 per cent., experienced functional difficulty in form of amenorrhœa at the onset."

With regard to climate, our author considers that, while it exercises considerable influence in developing the early sexual appetite in hot countries, it does not to that extent as was formerly supposed.

Amenorrhœa manifests itself under two forms: in the one, the generative organs remain inactive after the physical developments of puberty, no fluid being secreted; in the other, there is mechanical impediment to the escape of the product: the latter condition is one of frequent occurrence; in its simplest form it most frequently occurs, and generally requires very little medical treatment. That form which often does is characterized at the onset by general or local plethora, in conjunction with a vitiated state of the secretions. The treatment adopted in the cases mentioned consisted of repeated application of leeches to the hypogastrium, the hot hip-bath, poultices to the abdomen, and the administration of mild saline aperients, repeated at intervals of a few hours.

The menstrual function is liable to be interrupted, or totally suspended, from various causes, such as a cold damp atmosphere, intense grief, violent passions; acute, inflammatory, and infectious diseases, and certain kinds of medicine. Cases of acute peritonitis, inordinate obesity, partial paralysis, asthma, apoplexy, congestion of the cerebral veins and sinuses, and erysipelas are mentioned as resulting from sudden suppression of the catemenia.

Dysmenorrhœa is stated to have its origin in a morbidly irritable state of the lining membrane of the uterus, or those parts of the nervous system in immediate relation to it. The suffering is oftentimes considerable, the pains being intermittent, and often simulate the incipient pains of labour. Little is said about treatment, but in one case mentioned opium appears to have exercised a beneficial influence.

Vicarious menstruation is a form of dysmenorrhœa for which nature provides her own remedy, by withdrawing from the system, through a channel not originally intended for the purpose, the excess of circulating fluid. The organs through which compensatory discharges most frequently take place are the mucous membrane and the skin, but other organs may be occasionally the seat of vicarious disease. Cases are given of vicarious epistaxis; leucorrhœa; discharge from the surface of an ulcer; periodical diarrhœa.

Metrorrhagic menstruation is a peculiar condition of the organs of generation, under which a greater amount of fluid is separated from the blood during the monthly evacuation than the system can bear without inconvenience. The discharge is usually more or less clotted. It may appear under three different aspects. In the first the secretion is simply augmented while it lasts; in the second, it is too long continued; in the third it is too frequently repeated. These discharges occur in young girls sometimes before the age of puberty, and in women who have ceased to menstruate; in the latter it is connected with disease of the uterus, which, when not of a malignant character, consists in ulceration about the cervix, often the result of varicose inflammation, or of endo-uteritis. The treatment will vary according to circumstances: in some it will be necessary to abstract blood; in others, opiates and sedatives are indicated; and sometimes alterative and tonic medicines are beneficially employed. The nicest discrimination is requisite.

The menstrual climacteric Mr. Whitehead has found to be as uncertain as that of its commencement, the most commonly observed time being between forty and fifty. A singular case is narrated of a woman, an inmate of the Manchester Union Hospital, who was menstruating at the age of seventy-five, and who stated that she had done so regularly from the time she was thirteen years of age. She married at eighteen, and up to forty-three, when her husband died, bore fifteen children at thirteen births. At every pregnancy she menstruated regularly till the last month of the full time, and the discharge reappeared in two or three months after the birth of the child, notwithstanding that she suckled.

Our author has vaguely stated that the period of human gestation is nine months, reckoning from the moment of impregnation; and, before he enters upon the subject of abortion, mentions the usual signs of pregnancy, with all the difficulties and anomalies which often puzzle the practitioner when called to give his opinion. Thirty-two years is stated as the period which women in this country are capable of bearing children; the last five or six years of this term not being generally characterized by an aptitude for impregnation. The average time at which conception takes place after marriage, according to the statistics furnished of 541 married women, was about two months and a half; the average number of pregnancies twelve, including false conceptions, premature deliveries, and all having an unsuccessful issue. From a tabular statement in reference to the pregnancies of 2000 women, it appears that more than thirty-seven out of every hundred experienced abortion before they attained the age of thirty years. The popular idea, that first pregnancies have more frequently a premature termination than those which come after, is not supported by Mr. Whitehead's observations: the third, fourth, and subsequent pregnancies, and one or two of the last, are most unsuccessful. In 602 cases of abortion, which

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had come under his notice, 85 happened at two months; 275 at three months; 147 at four months; 30 at five months; 32 at six months; 55 at seven months; 28 at eight months. These causes of abortion were investigated in 2000 cases. Of this number 747 had already aborted once at least; to some the event had occurred several times. The sum of these abortions was 1222. The following are the causes to which they had been attributed:—

Inward weakness, impaired state of the health generally, and acute disease	910
Accidents, mental perturbation, &c. ..	222
No assignable cause	90
	1222

The "inward weakness," which is sometimes also called a "waste," refers always to a light-coloured vaginal discharge, unconnected with menstruation. Upon submitting these cases to a specular examination, there were but few instances in which disease of the lower part of the uterus was not found. In 378 cases, 275 were thus found to be affected.

The symptoms of diseased uterus are leucorrhœal discharges; a deep-seated pain in the lower part of the abdomen; a fixed peculiar pain in both sides of the body near the groin; aching of the loins; a sensation which is significantly denominated a "bearing down"; rigors, lassitude, and remittent feverishness; a frequent desire to void the urine; nausea; loss of appetite; painful digestion; cramps, palpitations, hysteric fits, convulsions, &c. The following are the forms of uterine disease which predispose to abortion at particular periods of the process of pregnancy:—Inflammation and superficial erosion of the lower part of the uterus; varicose ulceration; œdema; fissured ulceration; induration of the cervix; endo-uteritis; follicular ulceration; gonorrhœal virus; syphilitic disease; prolapsus uteri.

In the treatment of *superficial erosion of the cervix*, opium and calomel are recommended internally, leeches to the epigastrium, and solid nitrate of silver to the ulcerated surface.

For *varicose ulcer*, in addition to the above treatment, a strong solution of nitrate of silver should in no instance be omitted in the first instance; also sulph. of zinc, combined with vin. opii, or tinct. of matico.

Œdema of the Cervix.—The treatment indicated is almost entirely constitutional. Small bleedings are recommended at intervals, with the exhibition of calomel and digitalis in moderate doses, and saline aperients, combined or not with quinine as occasion may require. Local remedies may be beneficially employed if any abrasion of the surface remain after the absorbents have been brought into more energetic action, and when the evacuation of the fluid has been in a measure effected.

Fissured Ulcer.—This form of disease is one of the most frequent causes of what is called "habitual abortion," and is successfully treated by the administration of alteratives, and the application of leeches when there is much swelling, and afterwards of solid nitrate of silver to the diseased parts.

In *induration of the cervix* a strong solution of sulphate of zinc, combined with opium, is recommended to the abraded surface, and allowed to remain on the part for some time; in the subsequent treatment, solid nitrate of silver, or acid nitrate of mercury, while the internal remedies should be of the alterative and tonic kind.

In *endo-uteritis*, the treatment consists in local or general bleeding, regulated according to the strength of the patient, and the urgency of the symptoms; in the exhibition of alterative and soothing medicines; and in injecting within the uterus, when unimpregnated.

In *follicular ulceration* the treatment is similar to those methods recommended in the various forms of disease with which it is usually associated. In gonorrhœal inflammation, attended with plethora, local measures are not to be adopted until the system has been tranquillized by means of aperients, emollients, rest, and a mild diet. Sulphate of magnesia is one of the best aperients, dissolved in an ample quantity of any suitable mucilaginous infusion. The local applications should consist of nitrate of silver, either in the solid form or as a strong solution sulphate of zinc, alum, or chloride of lime. When the external parts are inflamed the lotio plumbi is a good application.

In syphilis, calomel and opium, and compound decoction of sarsæ, containing small doses of iodide of potassium, are recommended daily, and to the diseased surfaces the free application of nitrate of silver. In prolapsus uteri the application of pessaries is condemned, as the position of the organ can be restored without their aid. This is to be accomplished by a generous diet, when no febrile symptoms are present; tonic and chalybeate medicines, and the local application of lunar caustic, sulphate of zinc, sulphate of copper, matico, opium, and tannin.

In reference to sterility, Mr. Whitehead, considers one of its most frequent causes to be chronic endo-uteritis. "The disease," he says, "generally sets in soon after marriage, in cases where it is not attributable to specific causes; and in some rare instances there are evidences of its having existed before. The earliest symptoms are a sense of tension and soreness of the abdomen, aching of the loins, pain of the hypogastrium and thighs, pallor of countenance, languor, and general *malaise*. A slight leucorrhœal discharge manifests itself; this at first is clear and colourless, but soon acquires a yellowish or brownish tinge, and is not unfrequently offensive. The menstrual functions are performed with suffering; the discharge appears in unusual abundance, being sometimes clotted; and the peculiar secretion characteristic of internal inflammatory action occupies the whole interval between one menstrual period and another. The affection is accompanied with rigors and remittent fever; and there is a great tendency to peritoneal and enteritic disturbance." An examination of the uterus discovers its body, at the posterior part especially, enlarged and painful; the cervix tense, and sometimes erysipelatous; the labia thickened, with a vivid, red, irritable-looking ring of inflammation surrounding the orifice of the uterus, from whence arises a discharge of a peculiar odour. Pregnancy, in consequence, is prevented in three ways:—1. The inflammatory action, going on and aggravated by venereal excitement, may prevent the formation of the *membrana decidua*, and the ovum becomes blighted. 2. The Fallopian canals become obliterated. 3. The secretion of the internal surface of the uterus may be inimical to the active existence of the spermatozoa, occasioning their destruction before they arrive at the extricated ovule.—M. Donné remarks that certain kinds of uterine mucus kill the animalcules with the greatest rapidity. He considers that the excess of alkali which the secretion appears to contain, in some women, does this. Mr. Whitehead, however, believes that, when the secretion becomes endowed with a property precisely opposite, fecundation is prevented.

The work reflects great credit upon the author, as it shows him to be a man with a mind well disciplined, and one who has closely studied the subjects on which he writes.

THE MEDICAL TIMES.

SATURDAY, NOVEMBER 27, 1847.

THE COMMITTEE OF POOR-LAW MEDICAL OFFICERS.

THE form of interrogatory addressed by the Committee of the Convention to every individual union surgeon, a copy of which we publish in another column, will convince the friends of the movement that those gentlemen are fully alive to the important character of the duties involved in the trust confided to them. In providing for the accumulation, under the most authentic sanction, of a body of facts significant in their character, clear in their connection, and complete as a whole, the committee is establishing for every future operation a broad and immutable basis, whilst the views and opinions which the experience of such a body as the union officers of this kingdom can suggest must be peculiarly valuable in the responsible engagement by which its energies are tasked and its anxieties occupied. It cannot be necessary to urge upon any one to whom these inquiries will come the obligation of co-operating in the preparation of such important statistics—a duty the general and efficient performance of which will, by its results, entitle the committee, in its intercourse with the Government, to that consideration and deference which can never be long denied to a clear and vigorous statement of a righteous cause; and we feel satisfied that the response to the present appeal will be marked with that promptness and efficiency which have characterized the more exciting, but not more important, demonstrations by which it has been preceded.

MEDICAL APPRENTICESHIP AND MEDICAL EDUCATION.

"Ego nec studium sine divite vená,
Nec rude quid prosit video ingenium; alterius sic.
Altera poscit opem res, et conjurat amice."—HORACE.

MEDICAL education is a subject which has for some time past been seriously occupying the attention of those members of the profession who are anxious that reform amongst us shall be placed upon a sound and permanent foundation. It is only within the last few years that anything like systematic efforts have been made to raise the standard of instruction amongst general practitioners. Previously to the year 1815, when the Apothecaries obtained their act, the public had no guarantee that the medical attendant of the sick was an educated individual, as any one might, without let or hindrance, assume the most responsible duties of medicine. This was felt to be a state of things which required immediate alteration, and the associated surgeons and apothecaries succeeded so far as to win the attention of the Legislature, who passed a bill for the better regulation of the practice of medicine. The Physicians' corporation lost no opportunity of mutilating the bill wherever it could, and it succeeded in making it imperative that all those who sought to obtain licences to practise as apothecaries should be compelled to undergo an apprenticeship of five years, and that the Court of Examiners should be composed of members of the Apothecaries' Society. These were blows aimed directly at medical education—that the general practitioner should never obtain a high standard of qualification, and, therefore, should always be made subservient to the views of the physician. It is a fortunate circumstance, that all the mischief intended by the College of Physicians never happened; and by the exercise of great caution on the part of those to whom the working of the bill was intrusted, the surgeon-apothecary has been gradually rising in the scale of society, and is now in a good position to secure most important privileges for his order.

It must be admitted, however, that even now his education is very defective, and that any measure of reform, to be decidedly beneficial to him, must provide better instruction, both general and professional, than that which he now receives. There is a constant clamour about the

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profession being overstocked; and it is no difficult task to discover how it is that many obtain authority to practise who ought never to have been admitted within the pale of medicine. Some have imagined, that to make the fees for instruction much heavier would remedy that evil; it would do so in a very partial manner, for gold is a thing far more easily to be obtained than *nous*, and a material offering more easily presented at the shrine of medicine than an intellectual one.

If a careful analysis were made of persons who have obtained qualifications to practise, in the course of a single year, we should find many to have been those who were originally chemists and druggists—who perhaps started in that business, but, finding that it would be somewhat to their advantage to become regularly-qualified practitioners, determined on being surgeons instead of mere venders of physic. Now, it is evident that, if a good preliminary education were demanded, many of this class of persons would never be able to obtain a legal medical qualification, and there are multitudes of others who would be in the same predicament; while the members of the profession would enjoy an increased amount of public respect, and would not be exposed to so much competition amongst themselves.

There is no doubt that the system of apprenticeship which exists among the general practitioners has acted very injuriously. Its entire abolition is, perhaps, not to be desired, but there is required a very great modification. As it now exists, it stands in the way of education, every means being adopted to evade the necessity of passing five years in the surgery of a private practitioner; indentures are antedated, borrowed, and even forged; and it would take a vast deal more vigilance than that which the Society of Apothecaries possesses to detect the multitude of tricks which are weekly practised upon it. But, even supposing indentures to have been fairly executed, and the five years duly served, the knowledge acquired during that time is generally of a very limited description. Either from the fault of the pupil or the master, many valuable years of a young man's life are often sacrificed; and the real time when the study of medicine commences is in the hospitals and schools of the metropolis.

While, however, the system of lengthened apprenticeship exerts a very baneful influence upon education, both general and professional, a limited medical pupilage under the superintendence of a private practitioner is not without its advantages. Mr. Martin, of Reigate, in a paper on this subject, says, "I am decidedly of opinion that a youth destined for the medical profession as a general practitioner, after an adequate preliminary education of a liberal and comprehensive character, cannot commence his professional education better than by being employed for three years in acquiring a knowledge of the various articles of the *materia medica* —their peculiar characteristics—their sensible and medicinal properties—their preparation and composition in all the various forms in which they are dispensed and administered in the cure of disease: thereby improving the education of the senses, acquiring a readiness and quickness of manipulation, an accuracy and perfection in the combination and preparation of medicines." During this time it is also supposed that the pupil will acquire a sufficient knowledge of the articles of the *materia medica* to enable him to discover any adulterations in drugs which are so frequently sophisticated. In addition, also, he will acquire, it is thought, a method of neatly and correctly preparing medicines, a knowledge of osteology, and a dexterity in performing the minor operations of surgery. But may not all this information be acquired in a much shorter space of time than three years? We think that eighteen months well spent, under the superintendence of an intelligent tutor, would do wonders for the pupil in the departments alluded to. With regard to the articles of the *materia medica*, there is too much importance attached to many of them. The drugs and chemicals used by medical men in the treatment of diseases are few in number. Dr. Armstrong used to tell his pupils that a dozen would be, in general, all that they would find necessary for the successful treatment of disease where medicine is of any service. And all medical men soon arrive at this conclusion, that it is not the number of tools which they employ, but the skill and precision with which a few trusty ones are used, that produce the best results. A mere loading of the memory with the names and qualities of drugs which will afterwards never be employed, is a loss of valuable time which might be better employed in the pursuit of more useful knowledge.

It should be borne in mind, also, that the abolition or curtailment of medical apprenticeship, without *insisting* upon a young man destined for our profession possessing a good general education, would be productive of no benefit whatever. We would earnestly caution medical men on this subject, as a certain periodical, once noted for its scurrility, thought proper last week to take up the cudgels against a classical education for surgeons in general practice. It is true that a knowledge of the literature of Greece and Rome will not make a man a physician; but it has this excellent effect upon him, combined with other branches of polite learning—so to discipline and strengthen the mind as to fit it to study, under the most advantageous circumstances, the medical science. It is evident, moreover, that a mind well tutored by an early liberal education is not only placed in the most advantageous circumstances to acquire professional excellence, but there must be generally produced a refinement of taste subversive of those low tricks to gull the public which are practised by the quack fraternity possessing diplomas. There may be exceptions to this general rule, but they will be very few; and, with a profession highly educated, we may with confidence look for a high tone of moral feeling.

Sir James Clark, in reference to the tuition of medical men, remarks that, "It is from being uninstructed in the common principles of philosophy, and, consequently, unacquainted with the laws by which the various physical agents amidst which we live are regulated, and the effects of these in promoting health and inducing disease, that medical men have failed in some of their highest duties, that they have been less efficient ministers of health, and less successful investigators of disease, than they would otherwise have proved. It is in the power, as it is unquestionably the duty, of the Legislature to put an end to this state of things—to improve the education of medical men generally, and, above all, in its neglected and not least important department, *preliminary instruction*." We advocate a modification of the apprenticeship system, that the early education of youth destined to practise medicine may be as extensive as possible; and the mind will then be brought under the most favourable circumstances for the study of a science which is confessedly one of the most important to mankind.

PAYMENT OF MEDICAL MEN FOR PUBLIC SERVICES DURING THE CHOLERA.

The public are looking with anxiety at that Eastern scourge, the cholera, which is now travelling with hasty steps towards the shores of our own country. We rejoice to find that the claims of medical men to public sympathy and support, in case of the threatened invasion, are being advocated by many of the provincial and metropolitan journals. We have repeatedly declared that the manner in which the sick poor are left to the benevolence of the profession is disgraceful to the nation; and it would be adding to the numerous wrongs which medical men suffer, to expect that they should in times of pestilence perform duties fraught with danger without reward. The surgeon performs his engagements at the risk of his own life; and, should that be taken away, how often does it happen that a widow and a family are left without those worldly means which ensure respect and administer most materially to earthly happiness! We quote, with satisfaction, the following remarks from a Yorkshire newspaper:—"It is some trifling consolation, that the medical practitioner, in risking his life, is providing for his family when paid for his services; but when, as in the case of the cholera, all his danger and anxiety and toil are only rewarded by the 'I shall never forget' of the wealthy, the question assumes another aspect. The public can easily comprehend that the members of an honourable and dignified profession esteem such rotten praise to be more insulting than silence. The late Mr. Needham published a history of the cholera, as it appeared in the city of York; and in that work he has chronicled the avarice and selfishness of the then city authorities. We hope sincerely that this stain will be wiped away, and that the first steps, in anticipation of the cholera, will be the formation of a fund, by voluntary subscription, for the purpose of fully remunerating the courageous and diligent medical practitioner for his attendance on the sick. This is no medical gentleman's question, but a question of the poor man—a question as to whether the indigent are, in times of pestilence, to be efficiently supplied with competent medical aid."

It is a source of satisfaction to us, as we were the first to advocate the claims of the poor-law surgeons to increased remuneration for their services, to find that the public sympathy has been excited on their behalf, and to such an extent as to lead to a well-grounded hope that ere long parish authorities will be compelled to act with a greater measure of liberality to their medical officers. The question of medical remuneration is not, however, confined simply to the fees which surgeons receive who are officially employed in the parochial unions of the kingdom; and we are glad to find that the public press is viewing the matter in this light. In the last visitation of the cholera we are not aware of any especial fund being established for the purpose of rewarding medical men for their services; we trust, however, that past neglect will be atoned for by the wealthy portion of the community coming forward with their purses to provide a fund out of which medical men shall receive remuneration for their attendance upon poor persons who may be seized with the cholera.

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THE SHIP FEVER; AWFUL MORTALITY ON BOARD AN EMIGRANT VESSEL.

"Mors ultima linea rerum est."—HORACE.

THE terrible disasters which have occurred on board emigrant vessels appear not to have excited that alarm in the minds of those who superintend their equipment as to induce them to seek all approved means for the safety of the passengers and crews. In the face of the most awful calamities, and in defiance of Government regulations, many of these ships still continue to pass across the Atlantic freighted with human beings, but destitute of a medical officer, who is best capable of suggesting sanitary regulations, and of combatting disease when it makes its appearance. A passenger vessel without a surgeon is in as perilous a condition when there is sickness among the people, as a ship at sea without a governor on board acquainted with the laws of navigation. It is possible under both circumstances to escape destruction; but no one with the least grain of prudence or humanity in his constitution would, with the means of preventing it, allow a vessel, under such circumstances, to risk a voyage across the ocean. Merchants, for the sake of their own pockets, will take good care that their ships are superintended by those who are capable of conducting them to the wished-for port; but in matters which relate to the health and comfort of those on board they have hitherto manifested a parsimony which must be designated as cruel and inhuman. It is truly astounding that the Government and merchants should exhibit so much supineness in providing efficient medical officers for emigrant vessels, with a perfect knowledge of the tragic events which have lately occurred in consequence of fever amongst passengers. Scarcely can we credit that a ship would now leave our shores without having an individual on board well skilled in the healing art, and having at his command all the means which can be furnished to prevent disease, or to combat it in the best manner should it appear. And yet we have been again startled with a dreadful tale of suffering and death, arising from fever, on board the ship Avon, which started for America with 500 passengers on board.

At the very outset of the voyage, this vessel appeared destined to meet with no ordinary disasters. The weather proving unpropitious, she lost several spars, and so suffered in her rigging as to greatly prolong the time that she continued at sea. It appears that her human cargo consisted of the lowest orders of the sister country, who are represented as becoming during the voyage so turbulent and wild as to set at defiance every means employed to promote their health and comfort. They would hearken to no remonstrance, adopt no sanitary measures, and even resisted with main force every attempt that was made to ventilate and clean the steerage. As a consequence, the fever appeared amongst them, and exhibited so much virulence, being at the same time unchecked by any medical applications, as to prove almost immediately fatal.

But this was not all, for the ignorant and infatuated creatures would not separate themselves from the dead, until the infection arose to such a pitch that, frantic with despair, the captain, uniting with some of the more intelligent part of the passengers, and a few able hands of the crew (for the disease had extended to the men engaged in navigating the ship), gave battle to the unruly in the steerage, and finally succeeded in overcoming them. When possession was obtained of their loathsome den, the most appalling sight presented itself to view: sixty dead bodies were found in various states of decomposition, stowed away in chests or sewed up in beds. These, of course, were soon committed to the deep, and many a fresh victim soon followed, until the largest portion of the passengers and all the crew, with but two exceptions, were destroyed. Since the arrival of the vessel at Miramichi, into which port she put in a disabled condition, it is said that the Government has instituted a searching investigation.

Now, in this "searching investigation," we hope that three things have been particularly looked into:—1. The condition of the ship itself—its sea-worthiness, the state of the hold, the means of ventilation, and its capabilities of accommodating so many as 500 human beings. 2. What provisions were shipped for the use of the passengers during the voyage; whether these were in good order, and of sufficient quantity. 3. What resources were on board to meet, in the most effectual manner, the frightful fever when it appeared amongst the passengers and crew. This latter inquiry would involve an investigation into the condition of the medicine-chest; whether the drugs were sufficient in quantity and good in quality, in fact such as could be relied on when scientifically employed in the treatment of disease. We know that the dispensary of many emigrant ships is of the most wretched kind, the articles being supplied by some druggist who uses his own discretion as to what medicines shall be furnished for the voyage, and who can, if he please, send the most inert articles, having no efficient person over him to prevent him serving himself in the best way, even at the expense of the lives and health of individuals on board. Above all, it should be seen whether there was any qualified medical practitioner in the vessel. From the reports which have reached us we cannot learn that there was one: and every circumstance goes to prove that this was certainly the case. Now, it is imperative on the Government, should it be found that their regulations have in any way been evaded, with reference to a surgeon being in every ship containing a given number of individuals, and going on a voyage which shall occupy a certain length of time, to punish most severely the parties who have been guilty of this dereliction of duty. It is a matter which concerns not only the poor emigrants themselves, but the inhabitants of those countries amongst whom they intend to settle. If they arrive the subjects of a disease which, under particular circumstances, becomes infectious, it is impossible to foretel the extent of mischief which may be produced. Already in Canada numbers of the respectable inhabitants have succumbed to fever which had its origin on board ship.

This we conceive is a matter in which the members of the medical profession are especially called to bestir themselves. They should not be deterred from this because the plague is not experienced on our own shores; but, manifesting a benevolence which knows no other limits than that of the great human family, it is for them to use their powerful influence to prevent avaricious men from inflicting unspeakable injuries on the poor of our own country who engage in a voyage by sea; or of these innocently transmitting the seeds of a fatal disease to the inhabitants of the great Western continent.

The subjoined circular and inquiries have been prepared by the Committee of the Convention, for transmission to every poor-law medical officer in the kingdom:—

"Committee-room, 4, Hanover-square,
Nov. 22.

"The Committee of Poor-law Medical Officers submit to you the enclosed return, and they beg the favour of you to fill it up and return it to them *with the least possible delay*.

"In order to support the representations which they are about to make to the Government, they feel it necessary to be in possession of the most full and accurate information as to the present state of medical relief throughout the country; and the only means of arriving at that information is, by the general transmission to them of the enclosed return. Where medical officers have not attended their district so long as for the last five years, it will be sufficient to make the return for the time only that they have attended. Their attention is also particularly requested to the questions regarding the best mode of remunerating medical attendance on the poor.

"The committee beg also to remind you, that considerable expenses have been, and must be, incurred, in the prosecution of their inquiries; and they earnestly request that you will forward a subscription, by post-office order or otherwise, to the Treasurer, Thomas Martin, Esq., Reigate.

"We are, on behalf of the committee,

"Yours respectfully,

"THOMAS HODGKIN, M.D., Chairman.

"T. PIERS HEALEY, Hon. Secretary.

"All communications should be addressed to the Honorary Secretary, 4, Hanover-square."

The subjects on which information is desirable are arranged in a tabular form, under the following heads; and answers should comprehend, where practicable, the period from 1843 to 1847: "Total number of sick, as per weekly return. Number of sick attended, but not included in weekly return. Amount of annual salary exclusive of extras. Payment for midwifery—rate per case; amount received. What is your opinion as to the propriety of payment per case, and the amount? What is your opinion as to a fixed salary, based on the number of cases attended, and the mileage? What is your opinion as to payment for extra cases, exclusively of midwifery? What is your opinion as to fixed payment on the number of population, and area, to be settled by the Poor-law Commission?"

CHLOROFORM.

THIS new anæsthetic agent is attracting the attention of all classes of the profession in the metropolis. Already many operations have been performed while the patients have been under the influence of this new agent, and in every instance it has bid fair in a very short time entirely to supersede ether. Chloroform produces less irritation on the aërial passages; insensibility is induced by it in a much shorter time, in smaller doses, in a greater degree, and more persistent than sulphuric ether. We last week published Dr. Simpson's excellent paper on the employment of the new agent, and in the present number will be found some good remarks by Mr. Haynes Walton.

It is right the members of the medical profession should be informed that many spurious articles are being sold for chloroform, which have none of its virtues; surgeons in the country should, therefore, order of those in whom they can exercise a well-grounded confidence.

TO THE RIGHT HONOURABLE THE LORDS SPIRITUAL AND TEMPORAL OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND, IN PARLIAMENT ASSEMBLED;

THE PETITION OF THE PHYSICIANS AND SURGEONS OF THE CORK UNION

Humbly showeth—

That your petitioners respectfully beg to lay before your Honourable House a few of the grievances under which the medical profession in Ireland labours.

Medical men are frequently summoned by the

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Crown as witnesses to courts of assize, the fees seldom defraying half their expenses—these being exclusive of the loss caused by absence from home, occasionally of more than ten days' duration.

Medical men are often obliged to give evidence on behalf of the Crown in courts of quarter sessions, for which they receive little or no remuneration. The same injustice is practised to the Faculty in a recorder's court. No remuneration whatever is allowed in any of the above courts, except in cases of felony, though the services of the medical men are equally availed of in those of misdemeanour.

Medical men are constantly called on by magistrates and police officers, to institute critical examinations in cases of rape, battery, &c., for which they get no compensation, notwithstanding, without the aid of medical testimony, the ends of justice would many times be defeated.

Medical men are summoned by magistrates and constabulary officers before courts of petty sessions, often in consequence of the above examinations. For their attendance there the law recognises no remuneration.

The fee allowed to a civilian medical man, for medicines and attendance to a British soldier, is so disreputable as to require no comment; while a policeman (officer included) is, by law, provided with medical and surgical attendance, together with medicines, for 6d. per month.

The law requires a medical certificate in order to secure the admission of a lunatic into an asylum, but allows no fee to the medical man supplying the certificate.

In coroners' courts, the fees are not payable for a year, and pass through channels so complex, as sometimes to render them not available at all. The 32nd Section of the recent Coroners' Act furnishes an additional instance of injustice to medical men attached to hospitals, infirmaries, lunatic asylums, and other public medical institutions.

Your petitioners respectfully call the attention of your Honourable House to the above grievances, the injustice of which is so very obvious; and they humbly pray, they may be redressed in any bill that shall come before your Honourable House this session, either in reference to the medical charities of Ireland, or through such other channel as to your Honourable House shall seem fit.

And your petitioners will ever pray.

POOR-LAW MEDICAL RELIEF.

[To the Editor of the Medical Times.]

SIR,—I have just now read the letter addressed to the Right Hon. Sir George Grey, Bart., by E. T. Spooner, Esq. It contains much that is true, much that is good; but one suggestion, also, which I conceive, in the carrying out, would be altogether impracticable. Mr. Spooner says:—"I would propose, then, that an adequate dispensary and a qualified dispenser be attached to each union, to supply the medicines prescribed by the medical staff." Such a scheme could only be made available in the principal town of the union, where it might work well; but when we consider that a large number of union medical officers reside in country districts, its inutility will be at once apparent. Such a course would entail one of two things—either the establishment of a dispensary for every medical officer, which I believe no union would be found to accomplish; or it would compel the pauper to travel many miles before he could obtain the required medicines. Paupers have to travel many a weary mile as it is. They have first to travel to the relieving officer for an order (how far they alone know); then they have to travel back to the medical officer to present the same; and, last of all, have to travel again for the medicine. And a wearisome travel it is, without anything to lighten it! I repeat, a dispensary in every large town might work well and prove economical, but in country districts it would not be necessary; and yet to compel paupers to fetch their medicines from the town establishment would be only adding travel to travel, and would prove a heartless injustice. There need be no fear of medical officers dosing their patients with bad or inferior medicines—no fear of them withholding that particular remedy, no matter how expensive, which science has rendered available in the treatment of particular cases—if they only had awarded to them that fair remuneration which is justly due. This is all that is wanted. In my own district there are thirteen medical officers, three only of whom reside in the town; the remainder are stationed in villages at a distance of two, three, four, and five miles. The shortest, the best, and the most just way for the paupers is for these gentlemen to distribute their own medicines; and I believe they will be both plentiful and efficient—will embrace "leeches, quinine," and even "sarsaparilla," if commissioners, Government, and guardians can only be induced to award proper "pay." Poverty of payment is the root of the evil, not any disposition on the part of medical officers wilfully to furnish bad medicines. Bad as things are at present, I believe the latter surmise a libel, for I have that opinion of the profession that, if there were no pay at all, the medical relief of the poor would still be held a prominent duty.

Talking of leeches: Parliament should abolish the duty on leeches this very session. Fivepence per leech is a large sum out of a poor-law medical officer's pay.

I have the honour to be, Sir, your obedient servant,

FREDERICK SMITH GARLICK.

5, Cheapside, Halifax, Nov. 22.

CHINESE METHOD OF APPLYING MANURE.

[To the Editor of the Medical Times.]

SIR,—Referring to what M. Dumas says in his 32nd Lecture (*Medical Times*, vol. 17, p. 71), respecting the Chinese method of using human excrement, in a solidified state, as manure, I beg to observe, that I have it from an eyewitness—a British officer, who was there in the late disturbances—that the Chinese use the manure in question principally in a *liquid* state; manual labour being in that country obtainable at very reduced rates, from the excess of population. He has seen the inhabitants throng the fields, and, with a kind of wooden spoon, apply a little of the liquid night-soil to each root of the rice and other plants; and the luxuriance it produces in this manner is truly beyond conception.

If you can spare a nook for this communication in an early number of your valuable periodical, you will oblige yours truly, W. THOMAS.

Pembroke Dock, Nov. 17.

ROTHERHAM UNION.

At a meeting of the medical officers of the Rotherham Union, held at the Crown Inn in that place on Friday, the 12th inst.; present, Messrs. Turner, Blythman, Wilkinson, Wade, Flower, Hardwicke, and Stone:

Proposed by Mr. Blythman, seconded by Mr. Wilkinson:

Resolved,—That this meeting consider that the salaries of the poor-law medical officers throughout the country are not commensurate with the duties they have to perform.

Proposed by Mr. Wade, seconded by Mr. Stone:

Resolved,—That the medical officers of this union approve of the efforts now making by the Convention of Poor-law Union Surgeons, and express their determination to support them until redress be obtained.

Proposed by Mr. Flower, seconded by Mr. Hardwicke:

Resolved,—That a subscription of 5*s.* each be forwarded to T. P. Healey, Esq., the Secretary of the Poor-law Union Convention.

Moved by Mr. Wilkinson, seconded by Mr. Hardwicke:

Resolved,—That this meeting strongly object to the payment of the medical officers of unions by case.

Proposed by Mr. Wilkinson, seconded by Mr. Wade:

That Mr. Blythman be requested to take the office of Secretary, and to communicate with the Secretary of the Poor-law Union Convention.

JOSH. HATFIELD TURNER, Chairman.

DEATH OF M. DIEFFENBACH.

Last week we announced the demise of the celebrated surgeon, Dieffenbach, which took place at Berlin on the 11th inst., between two and three o'clock in the afternoon.

In the morning of that day he appeared in his usual health and spirits. At two o'clock he arrived at the Hospital of la Charité, Berlin, where he delivered a clinical lecture and received the visit of two French physicians. He also performed an operation for aneurism, and afterwards engaged in conversation with his two friends, in which he referred to the operation. Suddenly M. Dieffenbach turned himself, dropped his head back, and bent towards one of the gentlemen, so that the persons present thought that he was addressing something to him, which was intended only for his ear. As he remained in this position, it was perceived that something had happened to him. M. Angelstein, one of the physicians of the hospital, arrived and endeavoured to bleed him, but without effect. The illustrious surgeon had ceased to live. The autopsy not having been made at the time our former communication was sent from Berlin, we are ignorant at present of the immediate cause of death. The loss of M. Dieffenbach to science and surgery is very great; but to the University and public of Berlin it is irreparable.

This celebrated surgeon was born in 1795, at Kœnigsberg, and he first devoted himself to the study of theology. It was not till after the war of 1814 or 1815, in which he took part as a volunteer, that he devoted himself to medicine. In 1812 he repaired to Paris, and became a pupil of the illustrious Dupuytren, for whom he ever after professed an admiration so great as almost to amount to veneration. At his return to Berlin he performed many important operations, which were followed by complete success, and founded such a reputation as was not tardy in becoming European. He was a Professor in the University of Berlin, and President of the Council of Health. All the academies of Europe had enrolled him amongst the number of their members, and most of the sovereigns had conferred decorations upon him.

M. Dieffenbach has left in manuscript a very extensive work "On Etherization," and he had nearly completed one on "The History of Surgery," illustrated by numerous drawings executed by himself.

GOSSIP OF THE WEEK.

WAR-OFFICE, Nov. 19.—66th Foot: Assistant-Surgeon R. G. Montgomery, M.D., from the 74th Foot, to be Surgeon, vice Miller, promoted on the Staff.—69th Foot: Second-Class Staff Surgeon H. J. Schooles, M.D., to be Surgeon, vice R. Harthill, retired upon half-pay.—74th Foot: F. Robinson, M.D., to be Assistant-Surgeon, vice Montgomery, promoted in the 66th Foot.—75th Foot: J. S. Furlong, M.D., to be Assistant-Surgeon, vice Adolphus, promoted on the Staff.—Hospital Staff: Surgeon J. Miller, M.D., from the 66th Foot, to be Staff-Surgeon of First Class, vice M. White, retired on half-pay; Assistant-Surgeon E. Adolphus, M.D., from the 75th Foot, to be Second-Class Staff-Surgeon, vice Schooles, appointed to the 69th Foot.

NAVAL APPOINTMENTS.—Surgeons: Dr. John Burke, to the Stromboli; W. R. Dalton, to the Cygnet; Frederick J. Whipple, to the Alert.—Assistant-Surgeons: Gerald Yeo, to the Stromboli; Lawrence Carey, to the Porcupine; T. B. Forster and C. K. Ord, to the Asia; John Ward, to the Vengeance; Hart Gimlett, to the Lizard; W. C. Tucker, to the Raleigh; W. Bine, to the Blazer; Charles Forbes, to the Acheron; C. S. Lester, to the Belleisle.

APOTHECARIES' HALL.—Gentlemen admitted members Nov. 18.—Robert Walmisley Baxter, Benjamin Kealley, John Beecroft, and Robert Alexander William Westley.

ROYAL COLLEGE OF SURGEONS.—Gentlemen admitted members on the 19th instant, viz.:—Messrs. J. P. Teebay, W. Pearce, G. R. Pemberton, W. Fincham, J. W. Elliott, W. J. Edwards, G. Roper, J. Urquhart, J. F. Uniacke, G. H. King, N. D. S. Wallich, and T. Green.

BOTANICAL SOCIETY OF LONDON.—Nov. 5.—J. E. Gray, Esq., F.R.S., &c., President, in the chair. Donations of British plants were an-

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nounced from Mr. Hewett Watson, the Rev. A. Bloxam, Dr. Lemann, the Rev. W. R. Crotch, Mr. J. W. Salter, Mr. A. J. Hambrough, Mr. E. G. Varenne, Mr. B. M. Watkins, Mr. James Motley, the Rev. R. C. Douglas, Mr. J. Rich, Mr. G. Cooper, Mr. F. Barham, Mr. G. Rich, Mr. H. C. Stephens, the Rev. T. Butler, Mr. G. E. Dennes, Mr. B. D. Wardell, Rev. G. W. Sandys, Mr. R. J. Mann, Rev. H. Marsham, Rev. J. Bigge, Mr. W. Mitten, Mr. H. Taylor, Mr. T. Moore, Mr. W. L. Notcutt, and Mr. F. P. Pascoe. Azorean specimens had been received from T. C. Hunt, Esq., her Majesty's Consul at St. Michael's; and foreign specimens from Dr. Southby.—Miss C. Wilkins, of Westbury, Wilts, and Mr. A. Beardsley, of Heanor, near Derby, were elected members.—The Rev. Andrew Bloxham presented specimens of Anacharis alsinastrum (Bab), discovered by Miss Kirby in ponds or reservoirs, adjacent to Toxtonlocks Canal, near Market Harborough, Leicestershire, in October last.

THE HUNTERIAN MUSEUM.—We understand that the Council of the College of Surgeons have expended a large portion of their funds (report states £16,000 or £18,000) in the purchase of Mr. Alderman Copeland's extensive premises adjoining the college, for the purpose of increasing the magnificent museum and library.

KING'S COLLEGE HOSPITAL.—In consequence of the great increase in the number of out-patients applying at King's College Hospital, the council of King's College have appointed Dr. George Johnson, medical tutor of the college, as an assistant-physician to the hospital.

HOLBORN UNION.—At the weekly meeting of the board of guardians held at the board-room in Gray's-inn-lane, on Wednesday, the 17th inst., it was resolved, on the motion of Mr. S. Pearson, an intelligent and active guardian of the upper liberty, that the salaries of the several medical officers of the union should be increased, viz., that of Mr. Gibson, from £125 a year to £165; and those of the two other medical gentlemen, Mr. White and Mr. Whitfield, from £115 to £150 each, to commence from last Michaelmas-day; and that such sums should be exclusive of midwifery cases, which were included in the former salaries, but which it was declared should be paid for in future separate and distinct from the annual salaries so fixed by the board. It is a subject of congratulation that the board of guardians should have come to this resolution, inasmuch as the pay to the medical officers has long been inadequate, especially considering the great increase of both out and in door patients; and it now remains for other boards of guardians to imitate the example of liberality thus set by that of the Holborn Union.

DR. REID'S ALVEOLAR HEMORRHAGE COMPRESS.—The committee appointed to inspect the compress report that, having carefully examined Dr. Reid's compress, they are of opinion that the advantages set forth by the inventor, in his descriptive communication to the society, are realized by the apparatus.

THE CHOLERA.—The official reports relative to the progress of the cholera, published by the Russian Government, state that only 120 cases had manifested themselves at Moscow between the 30th of September and 14th of October, 41 of which had proved fatal. The epidemic prevailed at that period in sixteen governments of the empire, and had crossed the Dnieper. The report of its appearing in Galicia and Podolia was not confirmed. Hitherto it seems to follow a north-eastern direction.

HORSEFLESH AS HUMAN FOOD.—The *Belgian Medical Gazette* has made the following proposition to the Veterinary Society of that place:—To have a banquet where there was to be nothing but horseflesh, with vegetables produced in the country. Wine and every foreign production was to be forbidden. "Thus," they say, "we shall have a truly national banquet. What a desirable influence the example of wealthy and well-informed men will have upon the poor! To extol horseflesh is something, but to set the example of eating it is more meritorious."

MORTALITY TABLE.

For the Week ending Saturday, Nov. 20, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	1086	1046
SPECIFIED CAUSES...	1082	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	344	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	89	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	132	157
Diseases of the Lungs, and of the other Organs of Respiration	293	333
Diseases of the Heart and Blood-vessels.....	30	34
Diseases of the Stomach, Liver, and other organs of Digestion	86	74
Diseases of the Kidneys, &c.	16	9
Childbirth, Diseases of the Uterus, &c.	13	14
Rheumatism, Diseases of the Bones, Joints, &c. ...	13	7
Diseases of the Skin, Cellular Tissue, &c.	2	2
Old Age.....	40	65
Violence, Privation, Cold, and Intemperance.....	24	29

TO CORRESPONDENTS.

THE "MEDICAL TIMES" may be procured by an order on any Newsman or Bookseller, or it will be sent direct by post from the Office of the "Medical Times" to Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Pound Five Shillings IN ADVANCE, which will free them for Twelve Months. Half-yearly Subscription, 15s.; Quarterly, 7s. 6d.

The case of United Twins, by Mr. R. U. West, of Hogsthorpe, Alford, Lincolnshire, was by mistake placed last week under Original Contributions. It was an abstract of a pamphlet sent to us, and which originally appeared in "The Edinburgh Medical and Surgical Journal."

"Sigma."—The new anæsthetic agent has been successfully used in London in some surgical operations. Its influence appears to be exerted for a longer time upon the patient than ether.

"A Surgeon-Apothecary."—The only remedy is prosecution; probably the Company would assist, as it appears to be a clear case of illegal practice.

"Nuper Guyensis" writes, in reference to Mr. Lawrence's evidence before the Medical Registration Committee:—"He should have been the last to have aspersed the character of any examining body, when the qualifications of the mass of the men admitted within the pale of membership of the College are so manifestly inferior to their professed position in the medical world. Suffice it to say, that six months' grinding will at any time pass the most thickheaded dolt through the ordeal of the College of Surgeons." To obviate the necessity of grinders, as in the present system, and to direct the student in his studies, in order that he may afterwards become an efficient surgeon, our correspondent thinks that tutors should be appointed in all hospitals to superintend and examine pupils from time to time. Every pupil should be compelled to attend lectures and examinations, by means of a marker, as in a college life, at hall, chapel, &c.

"Edinburghensis."—The packet of newspapers was duly received, but we fear that events referred to are not exactly suited for the columns of a medical journal.

"P. C. D." is thanked for his suggestions, which shall be attended to.

"Amicus."—We admire the spirit of our correspondent, but there are some parts of the communication which may be misunderstood, and therefore improper meanings applied to them; we are, in consequence, reluctantly compelled to decline publishing it without considerable alterations.

"Dr. Fergusson, Kingston, Jamaica," is thanked for his communication. A private letter will be sent by the first packet.

"Chemicus."—We were not present when the experiments were tried with Ellerman's Patent Disinfecting Process, and are, therefore, unable to speak as to its merits.

"A Friend to the Medical Profession" writes with good intentions, but weak arguments. We perfectly agree with him in the view he takes of the late Medical Registration Bill, as containing but few good points; while, if it were suffered to become law, it would retard for a considerable period sound medical reform.

"Dr. Chas. Armstrong, Cork."—The petition of the physicians and surgeons of Cork to both Houses of Parliament has been received, and shall obtain an early insertion.

"A Friend and Upholder of the *Medical Times*."—The omission referred to was unintentional. The other points of the communication shall be attended to.

"Amicus, Great Bolton."—We cannot decipher one of the words in the letter, and are, therefore, unable to give an opinion as requested.

"Tyro."—The purpose of medical education is to furnish the practitioner with as great an amount of knowledge available in the treatment of disease as possible. There is no doubt that the present system is very defective, and it may be attributed to the competition existing between so many corporate medical constitutions possessing authority to grant diplomas.

"A Non-Medical Inquirer" had better seek his information concerning the "discovery and history of gunpowder" from those of the weekly newspapers which are accustomed to answer questions of this sort. It is out of the province of a medical journal to discuss non-professional subjects.

"A Poor-law Guardian" writes us, in very wrathful terms, for the part we have taken on the subject of medical remuneration to parochial surgeons. He says, "The fault is not with the guardians, but with those who will take the parish at the sum offered, and even below. I know four parishes where there were doctors willing to attend the poor, and some of the candidates went round to the different guardians soliciting as a favour their votes and interest. I do not see why they should, then, make such an outcry against us, nor do I think that it is anything to your credit to be found writing continually in their favour, and against us." We are very much obliged to our correspondent for the compliment he has paid us, and we assure him that we shall continue to expose the conduct of those who, calling themselves guardians of the poor, would withhold from their medical atetndants a just remuneration for their arduous labours.

"A Present Subscriber."—We will endeavour to accommodate our correspondent.

"An Edinburgh M.D."—A Scotch physician may practise in the provinces, without any fear of molestation from the College in London.

"A Correspondent" wishes to be informed the cheapest way to become a physician, and whether the medical information requisite is great. We beg to refer our correspondent to Dr. Burrows or Dr. Paris.

In a communication which we have received from "Mr. Hooper," Pall-mall, that gentleman, speaking of the virtues of pure chloroform, says—"I am most anxious that should not be hastily called in question, for, from some samples which have been furnished to me, I find that much irritation and sickness have ensued. This has resulted from processes having been used different from that of Dumas, and the product cannot be considered to be pure chloroform. By some persons chloric ether has been sent for it, and it is therefore incumbent upon all who use the product to test its nature. Pure chloroform should be neutral, and sink in water; it should possess a saccharine taste and have the odour of the apple, or, as Dr. Simpson says, a fruity odour. I can confidently appeal to Dr. Boott, Dr. Rigby, Prof. Fergusson, and Mr. Robinson; for the truth of my assertion, that pure chloroform has fully justified the commendations of it by Dr. Simpson; and I cannot too strongly recommend the process of Dumas to be, at least for the present, exclusively used."

"A Young Surgeon."—An appointment in the East India Company's service cannot be purchased. Application should be made at the East India-house, Leadenhall-street, where the information can be obtained without expense, and with very little trouble.

"Dr. J. C. Hall, Grove-street, East Retford."—We have received the paper on Sanitary Reform, which shall have an early insertion. The other suggestions shall be attended to.

"Mr. H. Haynes Walton" will see that his request has been attended to.

"The Committee of the Health of London Association, 40, Leicester-square."—We are fearful that we shall not be able to comply with the request contained in the note received.

"Senex, Dudley."—The poor-law medical movement is in a most healthy condition, and there is a prospect of tardy justice being done to hard-worked parochial surgeons.

"A Qualified Practitioner."—The communication had better be sent to Mr. Ross, the Secretary of the National Institute, Hanover-square. We are not certain as to the number of books in the library of the Institute; they gradually augment.

"Mr. Bolton."—We must decline the article sent.

Letters and communications have been received from Mr. Preston, Strand; Dr. Long, Sligo; Mr. Riles, Ventnor; Mr. Risdon, Dalston; Sigma; A Surgeon-Apothecary; Nuper Guyenses; Edinburghensis; P. C. D.; Amicus; Dr. Fergusson, Kingston, Jamaica; Chemicus; A Friend to the Medical Profession; Dr. Chas. Armstrong, Cork; A Friend and Upholder of the *Medical Times*; Amicus, Great Bolton; Tyro; A Non-Medical Inquirer; A Poor-law Guardian; A Present Subscriber; An Edinburgh M.D.; A Correspondent; Mr. Hooper, Pall-mall; Mr. Wm. Smith, King-street, Belper; Dr. J. C. Hall, Grove-street, East Retford; Mr. H. Haynes Walton; The Committee of the Health of London Association, 40, Leicester-square; Senex, Dudley; A Qualified Practitioner; A Young Surgeon; Mr. Bolton.

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No. 427. **SUMMARY.** Dec. 4.

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ORIGINAL LECTURES.

A COURSE OF LECTURES ON SURGERY.

BY

SAMUEL COOPER, Esq., F.R.S.,

Professor of Surgery to University College, London; Consulting Surgeon to London University Hospital, &c.

Lecture XIX.

Gentlemen,—At the close of the last lecture I left unfinished the subject of phagedenic ulcers; I described the disease as it is met with in syphilitic cases, but it may arise from other causes. It was seen in St. Bartholomew's Hospital that disease of this description was contagious, and that it was communicated by the use of the same sponges by the diseased and others. Although in its commencement attended with little febrile disturbance, the progress of the disease is rapid towards a general indisposition as terrific as it at first appeared slight. Perpetual agony prevents the patient from sleeping; the tongue is furred, and the appetite lost; the epigastrium is tender; together with these symptoms, the pulse is quickened, the skin sallow, and the patient suffers severely from headache. Bilious vomiting or diarrhœa frequently attends or follows.

In the local treatment bleeding can rarely be resorted to with advantage; venesection exposes the patient to the risks of hemorrhage, on account of the natural tendency of this disease; and leech-bites assume a morbid action, as is just what we see in hospital gangrene. Mr. Welbank found an application of strong nitric acid to the surface an excellent means of arresting the ravages of gangrenous phagedena. His mode of applying it was, after protecting the surrounding skin with a thick coating of cerate, to dip lint in the acid and apply it to the part, the surface of which was thus converted into a firm and dry mass. Simple dressings were afterwards employed, and an evaporating lotion. In France a solution of chloride of sodium, consisting of one part of the concentrated solution in eight of water, is employed, either mixed in a poultice or used with lint. The dressings most used are bread or carrot poultices, a watery solution of hyoscyamus, the liq. opii sed., with a pledget or poultice over the lint. From a consideration of the predisposing cause you will infer the propriety of attending to diet and regimen; when great debility exists, you are to employ bark, quinine, and wine, with a light nourishing diet. In St. Thomas's Hospital it is customary to allow a mutton chop, with eggs and milk.

The subject of ulcers and ulceration will be properly followed by that of burns, as, in fact, burns produce ulcers of a peculiar kind, remarkable for the luxuriance of their granulations and the powerful manner in which the circumference is contracted towards the centre, often producing most horrid disfigurement. It is not necessary to observe, that burns proceed from the communication of heat upon some part of a living texture, which, if produced by a liquid, is called a scald. As water will only admit of a temperature of 212° F.; or, to speak more properly, as after that degree it evaporates, you do not find in common water scalds that degree of pain and injury which follows the scald of thicker fluids, which attain a much higher temperature. You will likewise remember, that a scald is apt to be severe from the rapidity with which it spreads and the extent of surface it covers. You find that where the cuticle is thick less injury results, as you would naturally expect; and this is particularly seen in persons like blacksmiths, who, from the nature of their labour, have the outside of the palms of their hands so thick as to enable them to handle a surprising degree of heat without injury.

Burns may be classed in six varieties:—In the first there is just a redness of skin where the degree of heat which has been applied has not been intense, and there is little or no sloughing, and some erethema; and in a very few hours, or, at most, in a day or two, the effects will subside, and the cuticle peel off, leaving no remains of injury in the part. It is very true that even this degree of heat may produce great injury, and even danger where it is very extensive, as it suspends the functions of the skin, very much to the loss of the whole system; the pulse is quickened, the tongue red, and the mucous membrane of the alimentary canal is excited. In the second variety the degree of heat has been greater, the redness is darker, and sloughing more considerable, but what marks it more particularly is the formation of vesicles, which sometimes rise immediately after the application of heat, and in other instances, within twenty-four hours afterwards, contain serous fluid. In the third class, the surface of the cutis suffers, and is more or less destroyed; the vesicles attending this injury contain turbid blood and serous fluid; you may know it by the appearance of the part, it having a yellowish or light brownish discoloration. These parts are converted into eschars, from which the patient suffers no pain, unless pressure be applied, which produces suffering by affecting the living parts between the eschar. In the fourth class, the whole surface of the cutis is destroyed, and more or less of the subcutaneous texture is injured; the discoloration of the eschars is also of a deeper colour. You may observe that these eschars are stiffer than those in the preceding classes, and also more brittle, and the skin around them is puckered and wrinkled. Upon the separation of these eschars you find ulcers, from which granulations are formed and they spread in great luxuriance; there is also profuse discharge of pus. In the fifth class of burns the textures more deeply situated are involved, as the fascia and muscles; sometimes nerves and vessels, not destroyed, are included. The eschars are thicker, cold, black, and brittle; they are longer in separating, but when they do separate, there is a very rapid discharge of pus, and quick granulations. In consequence of the muscles being involved, their action is impeded, and it often happens that the whole functions of a limb are suspended by a burn of this kind. In the sixth class the limb itself is turned into a black, insensible mass, as sometimes occurs in large iron foundries, where the hot metal comes in contact with the lower extremities; the foot, for instance, is placed in the groove or gutter where the hot metal runs, and is at once converted into an eschar, when, indeed, it is not at once annihilated. I need not tell you that in the former case you must amputate the member.

The constitutional symptoms of burns may vary much; I may tell you they are devisible into two classes: those arising from the shock and irritation of the system produced by the action of heat; and those which come with the reaction which takes place, such consequence implying hectic disturbance and its usual concomitant circumstances.

A burn may be only superficial, and yet, from the extent of its surface, highly dangerous, and perhaps fatal, from the shock experienced by the system. It may produce such depression of the circulation that you can scarcely feel the beating of the arteries of the wrist, and the whole body may be in a state of utter prostration. Now, all the danger arising from the first and second variety of burns is, in the first stage, a fact which you will take notice of, as it does not apply indiscriminately to the rest; and, if the patient get over the first stage, there is small danger to be apprehended from the rest; resolution will take place, and within twenty-four hours the danger will have passed away. Not so with burns of the third, fourth, and fifth degree: involving the deeper textures, they are not at once attended with all that constitutional danger attending burns of the first and second degree; but in three or four days, when the process commences by which the eschars are separated from the living parts, a great degree of constitutional disturbance takes place. This process may take three or four weeks for its accomplishment, but it commences within three or four days of the injury; and that period is always one of great danger in burns of this degree. Dupuytren called this dangerous disturbance, the irritation from the injury, or, as we should say, the shock.

The second period of danger is during the inflammatory stage. The third period of danger is when suppuration is going on, and the great discharge tends to produce hectic.

There is one subject connected with burns not very well understood till within these last twenty years. I allude to the *post-mortem* appearance after burns. When persons perish in the flames there is no opportunity for inflammation to take place; but it is found there is a determination of blood to the internal organs, and there are red spots seen on the lungs, on the membrane of the bowels and the bronchial ducts, and often on the capillary vessels, and effusion of serous blood into

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the several cavities of the body. These marks, though arising in cases where the surgeon can be of no service, are yet of great use in helping to an understanding of the way in which burns bring on death. If the patient live till the third day, and then die, you will see traces of inflammation of the internal organs, especially in the mucous membrane of the lungs and the alimentary canal. If he die in about eight days afterwards in the hectic stage, you will find, not only traces of inflammation of the mucous membrane, but ulcers, and the parts have been even perforated. This has been seen in this hospital, where the duodenum has been found perforated in one or two cases. In some instances death has been preceded by a kind of stupor; the patient becomes inert. There is also uneasiness about the stomach, and, in addition to that, a difficulty of breathing, which was formerly accounted for by supposing the existence of some principle of sympathy of the lungs with the injured surface; but we know now that they become congested and loaded with blood.

The prognosis depends principally upon the extent, the degree, and the depth of the burn. You may have a burn of the first and second kind, and, if of small extent, it is of no danger; but if you have three or four feet of surface, the danger will be very great, although the degree and depth of the burn may not be of the worst order, and the patient may die in the inflammatory stage from the great constitutional disturbance which comes on. Burns on the head, neck, face, and trunk are, generally speaking, far more dangerous than those on the limbs. Scalds of the throat are dangerous, because they implicate the larynx. Children of the poor may often drink out of the spout of a teapot or teakettle, and the larynx is inflamed, the glottis closed, and death comes on most rapidly. Some burns are very dangerous on account of the complications they involve, such as phlegmonous erysipelas; and, in burns of the sixth degree, you have necrosis, or death of bone. When called on by the friends of a patient to express an opinion on the danger of a burn, you cannot use too much caution, as the different periods of danger are many, and when the degree of heat is great, supposing your patient to recover, it will very likely be with great disfigurement, arising from the violence with which the cicatrix is drawn to the centre. The separation of the eschars, too, will disclose a greater amount of injury than would be imagined before they were removed.

CLINICAL OBSERVATIONS ON SOME OF THE MORE FREQUENT DISEASES OF CHILDREN.

By W. HUGHES WILLSHIRE, M.D. (Edin.), M.B.S., Physician to the Royal Infirmary for Children, &c.

(Continued from p. 112.)

I have, to-day, gentlemen, to consider one of the most frequent and fatal of diseases to which children from birth up to between two and three years of age are liable; a disease, also, I believe, constantly mistaken or, perhaps, rather miscalled, and one which merits your utmost attention. This is the simple, uncomplicated, inflammatory form of diarrhœa, which leaves behind it indubitable organic lesions, chiefly met with in the larger intestines, sometimes in the stomach, and in France exhibiting in many cases a peculiar condition of the liver. The morbid appearances seen after death from this affection, being more prominent in the larger bowels than anywhere else, the name of *entero-colitis* has been by several writers bestowed upon it. It is, as I have told you, almost peculiar to infancy and early childhood, few children dying of it after two and a half or three years of age. It assumes the place in such patients of the general muco-enteritis of elder ones, and also especially of typhoid fever and remittent fever of a typhoid type. In some respects it is, as Bouchut has remarked, "the antithesis" of typhoid fever. In this form of diarrhœa the anatomical alterations have their chief and primal seat in the larger bowels, and spread, as it were, from the lower foci into the upper ones; whilst, in the fever alluded to, they originate in the upper, and secondarily involve the lower, intestines. When the intestines are involved in typhoid fever, it is, you know, the ileum which is chiefly attacked; in our present disorder, the colon mainly suffers. In our own country the intestinal affection in this fever is not so frequently met with as it is in France, and in Edinburgh less often than it is here. Of the particular morbid appearances of our present disorder I shall speak presently.

If you reflect, you must remember that you have often seen infants and very young children who, after being weaned, or nursed upon bad or impoverished milk, and exposed to other anti-hygienic influences, or during difficult dentition, affected with an obstinate diarrhœa; you will have observed them get thinner and thinner daily, reject their aliment from the stomach; become affected with herpetic, eczematous, or apthoid affections; and, in spite of all you can do, proceed from bad to worse, until at last, in the extremes of emaciation and miserableness, there occurs a fatal event. In a rather slow and chronic form of this disorder, if the belly has become at any time swollen or hard, the little patients are often said to labour under "mesenteric disease," or, if not this, of "infantile marasmus" or of "bodily decline."

In most cases of the infantile disorder I am about to speak of, the child at the onset exhibits much the same series of symptomatic phenomena as it does on the supervention of a common catarrhal diarrhœa of the serous form. From this it is often very difficult to say what affection in the long run we shall be called upon to treat. So difficult is it, that Bouchut maintains that at first it is impossible to establish a distinction. A like difficulty exists between the diagnosis of catarrh and that of lobular pneumonia of children of a similar age. In each, however, time dissipates all uncertainty: new characters unfold the existence of pneumonia; new symptoms reveal the presence of entero-colitis. So it is also with hooping-cough in its early stage, in which the initial catarrh has no mark by which the troublesome and obstinate malady is foreshadowed.

Mild as the disorder often is at its beginning, the general "malaise" increases; the stools become more fluid and less homogeneous, lose their yellow colour, and have a bad smell. The tongue still preserves its natural appearance, or is rather redder than usual, as is the mucous lining of the oral cavity. The stools now becoming more fluid and heterogeneous, the child gets thin and weak; loses colour; the nates and thighs become red; and fever, more or less continued, according to the age of the child, is seen. On pressing the belly, from the child crying and twisting its legs about, pain is evinced. Vomiting or constant regurgitation of the aliment is observed, and the skin is often very hot. Soon rapid emaciation follows upon the still obstinate and watery diarrhœa, whose dejections are now often of the "spinach" form, and sometimes here and there mixed with a little mucus, having streaks of blood in it. The tongue is then often coated—in the centre dirty white, red at the edges, or apthoid disorders appear on the inside of the lips and on the tongue. The lips become cracked and sore, herpetic eruptions often appear about the mouth, and the thighs and nates suffer from erythema and ulceration. Prolapsus ani is not uncommon, and the French writers particularly allude to ulcers on the ankles. The fever now abates, but the vomiting continues; the extremities become very susceptible to cold; the loss of flesh is extreme; the belly becomes flaccid, and of a dirty brown colour, or of a speckled hue, as do the integuments of the thighs, which hang about in loose folds. The breath, as well as the motions, are often very acid. On applying the ear to the belly, you will *sometimes* hear *gargouillement*. The child now refuses everything; the motions run away like plain water; the spaces beneath the eyes fall in; it lies on its back quite quiet if laid down; the face becomes pale and cold and hot alternately; it becomes almost too weak to cry, breathing with difficulty, and dies in the extreme of marasmus and exhaustion. Such is a general form of the course of the malady, which rarely proves fatal under a fortnight, sometimes not for several months; which may run a course of acute character, marked by continuous febrile symptoms, or a very slow and chronic one, the appetite often being preserved almost ravenous to the last.

In some instances the disorder breaks out very suddenly. After a considerable degree of "malaise," diarrhœa appears, vomiting is constant, emaciation becomes in a few days extreme, and the exhausting discharges reduce the little patient to the lowest ebb. Sometimes, again, the first and intense symptoms subside somewhat, the disorder assuming the more chronic form; in other cases they continue, and the child soon succumbs. As a rule, however, the disorder is not of an acute and rapid character.

Speaking of these two forms of the affection, Bouchut—who has paid great attention to them under the auspices of M. Trousseau in the Hôpital Necker—says, "Acute entero-colitis is accompanied by an evident and rapid deformation of the features. In the course of a single night the face becomes wan and emaciated; the lips lose their colour; the nose becomes pinched; the cheeks fall in; the eyes become hollow, lose their brightness, and are encircled beneath by a deep, hollow infra-orbital space. In the chronic form the emaciation of the face *gradually* makes progress. The skin, deprived of its cellular tissue, remains soft, flabby and wrinkle over the muscles that *draw* it in every sense. The child presents an emaciated figure, it is fleshless, the bones project, numerous wrinkles furrow the brow, and become evident round the eyes, round the lips, on the chin, and on the neck. The child resembles a little old man about to die, and, as a "*spirituel*" physician once remarked to me, has a *Voltaire-like* countenance. To those who are acquainted with the observations which have been made on the physiognomy of this great philosopher, the phrase will be most expressive, and I shall adopt it."

You must have often remarked how frequently I have spoken of "green patches," and of green "spinach"-like stools; and, also, that such stools may be met with in the simpler as well as in the most formidable kinds of diarrhœa. Upon the exact nature of these stools there has been much variety of opinion, but it was not until Dr. Golding Bird, about two years ago, undertook to examine them chemically, that any precise opinion was ventured on the subject.

Some persons have spoken of green stools occurring after children have taken mercury, and hence all green stools have been supposed to indicate the previous administration of that metal, which has been said to cause them "by the mercurial stimulating the gall-ducts, and thus exciting the gall-bladder to pour out its contents, which, from having been pent up for some time, have become viscid or inspissated, and acquired a much darker green hue than recent hepatic bile." Then some have drawn a distinction between these green stools of mercury, and the green slimy motions sometimes seen in hydrocephalus. "Hydrocephalic stools are distinguished from these by being very little acted on by water, which is scarcely coloured or rendered turbid by them, and by possessing little or no offensive odour. We know too little about the manner in which the liver or any other gland separates its secretion from the blood to explain the nature of the change which produces hydrocephalic stools, but we know that it is intimately connected with the state of the brain." Again, a distinction has been attempted to be fixed between the green stools I have already spoken of and the "chopped spinach" motions of severe diarrhœa. The "muciparous fluid," says Bouchut, "is constantly acid, though not always to the same degree; and we are ignorant of those circumstances which augment its acescency, though the existence of the latter be so easily determined. The biliary secretion is alkaline, and serves to neutralize the

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destructive power of the former. From their reaction on each other, and the mixture of the result with the alimentary matters, a peculiar colour is produced which bestows the green colour I have already spoken of, on the motions." "But it would be wrong to consider this green coloration of the dejections as always the result of the acescency of the gastric fluids, for it does not disappear after the internal administration of absorbent and alkaline powders. This it should do if acescency were its cause."

However, to pass at once to the researches of Dr. Bird, I may give you his *resumé* after analysing a "chopped spinach" stool passed by a hydrocephalic infant whilst under the influence of mercury. He says:—"I am induced to regard the green colour of the emerald and "chopped spinach" stools of children as depending upon the presence of modified blood rather than as an excess of bile;"—"as indicative not of a copious secretion of bile, but of a congested state of the portal system, in which blood is exuded very slowly and in such quantities so as to allow of the colour being affected by the gases and secretions present in the intestines." Now, if I had made any minute research or chemical analysis of the green stools of children, I should not have troubled you with so many other persons' thoughts; but as I have not, I have thought proper to do so. However, I have made one or two "clinical observations" upon the subject, which I may just tell you of. In the first place, I believe that all the varieties of these stools owe their existence to the same general cause, whether coming after the administration of mercury, in the course of tuberculous meningitis, in the progress of catharral diarrhœa, or of entero-colitis itself. Secondly, that any modified appearance they present is owing to the great or less intermixture of the serous and mucous exhalations, and general consistency of the fæcal matter in which the colouring material is contained. Thirdly, that they are not indicative to us, in our present state of knowledge, of any individual anatomical alteration, as they may occur after mercury or not; they may or may not occur in tuberculous meningitis; they may occur in a simple or very severe form of diarrhœa; and, *vice versâ*, mercury may be followed by all sorts of stools, tuberculous meningitis also; and so may all the forms of diarrhœa have all forms of stools. Lastly, I cannot agree with Dr. G. Bird in thinking that these peculiar motions are, in the majority of cases, when first voided, of a bright orange colour, and that they assume their characteristic grass-green hue only after exposure to air. I have inquired of the mothers and nurses, whether the stools are green when voided, or not so, and whether they only turn green after a little time has elapsed. To all my inquiries, except in one instance, I have been told they were evacuated of the green colour. I agree with Dr. Bird in thinking that blood is more often discharged or mixed up with the dejections of children than is commonly allowed, and that it *often* precedes the appearance of the stools in question; but still not often enough for me on that single fact to be able to trace between them a relation of cause and effect. For me to offer an opinion upon the *chemical* researches of so able an analyst as Dr. Bird would be out of place, so I must refer you to his paper on the subject in the *Medical Gazette* of Sept., 1845.

I have now to refer to the morbid appearances met with after death from severe forms of uncomplicated diarrhœa. I told you, you will remember, that in the simpler kinds of the sympathetic, serous, and mucous types, or in the catarrhal affections of the intestinal mucous lining, we have not evidence enough to lead us to believe that these forms are dependent on anything else than temporarily increased exhalation and peristaltic action; that, although we may suppose some change in the structure or machinery of an organ must ensue before alteration of its function can take place, yet that these disorders happen to be of that category in which the structural changes producing the functional aberration are inappreciable to us. The alterations of the organs are too "transcendental" for us to seize them, although the modifications of their offices are apparent enough. When such is the case, and we only know the diseases by the modified functions, we are at liberty to call them *functional disorders*. So do I call the sympathetic and the catarrhal forms of diarrhœa. We may, it is true, give a sort of physiological guess at what the changes of the organs chiefly consist, or how the latter may be influenced to produce these alterations of their functional phenomena; but we are not at liberty from such, however *probable* in their truth, to indicate the disease accordingly. Thus, in relation to the catarrhal form of diarrhœa, we are authorized in supposing that it is the *follicular* apparatus that is originally affected, and that any changes in the texture, &c., of the true mucous membrane itself are wanting, or are secondary or subsidiary to the first. We may also go to this extent, and find with M. Bery (*Lancet*, August, 1845, and "Ranking's Second Report"), that the caliber of the capillary vessels is much greater in children than in adults; that this applies particularly to the meshes of the follicles of the intestines; and, therefore, discover how such anatomical peculiarities explain the rapidity and abundance of their secretions, the more especially when suffering an unusual stimulus. Also, how the capacity of the tissues renders their engorgement easy, and at the same time renders their disorganization slower; and why, therefore, it should occur that children who have died of another disease, but have had diarrhœa for a long while, sometimes present no appreciable alteration of the intestines; or why, as Bouchut, Rilliet, and Barthez, &c., have shown, in some rarer instances where the child has actually succumbed from diarrhœal exhaustion, there has been found no special modification of any of the viscera; and in these cases so severe have been the symptoms that entero-colitis has been assumed to exist.

In taking these and other circumstances into consideration, we can also readily understand how the continuance of stimuli to the mucous follicles, and the persistence of the diarrhœa, should at length sometimes convert a catarrhal form of the disorder into one afterwards prolonged by gastro-intestinal inflammation and its sequences, and this inflammation, &c., be the cause of death.

ON THE PHYSICAL PHENOMENA OF LIVING BODIES.

By Professor MATTEUCCI, of Pisa.

Part XVI.

VOCAL APPARATUS—VOICE.

(Continued from page 17.)

We have to preface Müller and Weber's experiments with a brief exposition of a few general facts concerning the sounds produced by reeds.

Reed instruments are, generally speaking, of simple construction. Take a metal plate, about 1-10th or 1-8th of an inch in thickness; cut out a rectangular aperture, about four times as long as broad, and place over this a thin elastic brass plate of the same shape, and of a size just to close the aperture; solder or screw this plate on one of the two smaller edges; this will constitute a vibrating tongue, which may be set in motion by putting the instrument lengthwise to the lips, and blowing a current of air against the free end of the small brass plate. It would seem to result from several experiments that the *nature* of the sounds produced in this manner by vibrating tongues is altogether independent of the intensity of the current of air that may happen to be directed against them, and also of the nature of the gas constituting this current. The nature and intensity of the current seem to influence simply the *intensity* of the sound produced.

The sounds produced by vibrating tongues may be accounted for upon two different suppositions: either the tongue may be looked upon in the light of a vibrating metallic rod, producing sounds by its vibrations; or it may be assumed that the oscillations suffered by the tongue in its alternate displacements by the current of air, and returns to its original position by strength of its inherent elasticity, act in the manner of the vibration imparted to the air in the siren or in Savart's machine. The second supposition would seem the more correct one of the two, since we find that the sounds which the tongue yields under the impulse of a current of air are louder and more distinct than those produced by its vibrations under the influence of mechanical shocks. Against this view it might be urged, however, that the mere mechanical striking or twanging of the tongue imparts to the latter only a species of shake by no means of sufficient duration to produce a uniform and protracted vibrating movement; besides, why should we not assume the coexistence of the *two* causes?

The instrument spoken of in the preceding lines is only a simple tongue-work, and not a reed instrument in the full acceptation of that term. To form the latter it is still requisite to mount upon the tongue a sonorous tube. The sounds produced by a complete instrument of this kind differ vastly from those yielded by simple vibrating tongues. The sound produced is a combination and mutual modification of the two different kinds of sound yielded respectively by the tongue and the tube. From Weber's experiments upon this subject it results that the addition of the tube may serve to deepen the sound of the vibrating tongue to the extent of, at the most, one octave, but that it never produces the opposite effect.

We come now to the sounds yielded by reeds formed of membranes; and here we have to occupy ourselves more particularly with those which in form and shape strongly resemble the glottis; these consist of a flat, thin piece of india-rubber, fastened on the edges of one of the apertures of an open tube, and presenting in the centre a small longitudinal cleft. It is by means of apparatus of this kind that the construction of an artificial larynx has been attempted. The sounds yielded by membranous reeds may be greatly modified by varying the tension of the membrane: compression of the latter renders the sound more acute. The great difference between the sounds produced by membranous, and those produced by metallic, reeds consists in this, that the sound yielded by the former increases in acuteness in proportion to the force with which a current of air happens to be propelled through the tube; whereas the reverse is the case with metallic reeds.

The sounds produced by membranous reeds are greatly modified by the tubes or pipes adapted to the reeds. Müller observed that the sound grew higher or deeper according to the greater or less length of the pipe or tube mounted upon the reed.

The greater number of wind instruments, and among them horns and trumpets, may be looked upon as membranous reed instruments; a skilful performer on such instruments is able to embrace three octaves by simply varying the tension of his lips, and without altering the length of the column of air propelled into the instrument.

The organ of the voice of man is essentially a reed apparatus formed by two membranous lips, as has been experimentally demonstrated by Müller. This philosopher fastened the larynx of a dead subject upon a board, having previously removed the whole of the parts situated above the lower ligaments; he then attached, by means of a hook, a cord to the angle of the thyroid cartilage, immediately above the vocal chords; this cord he passed over a pulley, and fastened it to a balance-scale. By this means he was enabled to give a greater or less degree of tension to the vocal chords, by placing a heavier or lighter weight on the scale; lastly, he added a wooden pipe to the trachea.

With this apparatus Müller observed the following facts:—

1. When the glottis is sufficiently narrow, and the vocal chords are in a state of tension, full and clear sounds, analogous to those of the

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human voice, are produced upon propelling a current of air through the wooden pipe attached to the trachea.

2. The sounds produced by a larynx, prepared and arranged in this manner, increase in acuteness in proportion to the degree of tension of the vocal chords, and this even to the extent of about two octaves; upon carrying the tension of the vocal chords to a very high degree, the sounds produced become hissing and disagreeable to the ear.

3. The sounds produced when a slight degree of tension only is applied to the vocal chords, differ in intensity, but not in tone, according to the greater or less degree of contraction exhibited by the glottis. When the vocal chords are brought within actual contact with one another, the sound is strongest and fullest.

4. By increasing the force of the current of air propelled into the pipe attached to the trachea—maintaining the vocal chords at a constant degree of tension—the sound may be heightened to the extent of a fifth, and even more.

5. The parts of the larynx situated above the vocal chords, and the upper cavity of the mouth, seem to perform in the apparatus of the human voice the part which the tube or pipe performs in a reed instrument.

Weber has succeeded in the construction of an instrument yielding equally clear and pure sounds for the *piano* and the *forte*, though the cause producing the sound vary considerably. This instrument is so contrived that whenever an increase in the intensity of the current of air propelled through the tube heightens the sound yielded by the latter, this is accompanied and compensated by a correspondent lowering of the sound yielded by the tongue.

With regard to the "*compass of the voice*," it is obvious that this must depend partly upon the extent of vibratility possessed by the vocal chords, and partly upon that possessed by the membranes and cartilages of the larynx, and also upon the *resonant* faculties of the nasal, buccal, and thoracic cavities.

The "*intensity*" or "*volume*" of the voice depends partly upon the degree of force with which the air is expelled the lungs, and upon the size of the thoracic cavity; and partly upon the degree of vibratility possessed by the vocal chords and the rest of the larynx.

ORIGINAL CONTRIBUTIONS.

CEREBRAL AFFECTIONS.

KING'S COLLEGE MEDICAL SOCIETY.

(Professor PARTRIDGE in the Chair.)

Mr. Griffith read an interesting essay on "Some peculiar Cerebral Affections," of which the following is an abstract:—

In the first part, the author gives an account of a very interesting series of cases of cerebral affections, which occurred at Herne Bay during the spring of 1844, having all the characters of an epidemic. Not less than fifteen adults in the practice of one gentleman, in a population under 2000, and during the space of two or three months, were attacked with various degrees of vertigo, headache, and affections of the sight: several were seized with paralysis, more or less complete, and two with apoplexy. Not one of the whole number died; no more than one or two required, or could bear, depletory measures. There were no atmospheric phenomena to account for the epidemic, and it was the first time that it had appeared in that locality. The author then adverted to other instances of epidemic cerebral affections.

The second part of the paper was taken up with the consideration of Anæsthesia. This may be either simple or combined with want of power; it is to the former to which attention is now directed. Simple anæsthesia may be local or general: thus, in some, small patches only of ntegument are wanting in their sensibility, while in others, as in a case related by Andral, sensation is lost over almost the entire surface of the body. Sauvage relates a case in which the whole of the body was involved. At other times it assumes a paraplegic or hemiplegic character. Mr. Broughton relates a case in which it succeeded to complete paraplegia of the lower extremities. Other cases are also related; but its most interesting as well as curious form is, that in which it assumes a hemiplegic character: no case of which has yet been published. The following are notes of a case which occurred under the author's own observation:—The person, the subject of the following account, was about twenty-two years of age, and had previously enjoyed comparatively good health, never suffering from any but the ordinary complaints, with the exception of some severe attacks, when young, of otitis in the right year, followed by caries of the temporal bone, and total loss of the power of hearing. At the time of which we now speak he was somewhat out of health, owing to close application to his profession in town. He stated, that after violent exercise in climbing the Cheddar Cliffs on a warm day in the end of last August, being somewhat heated, he went in this state into the cold, damp caves; he was not struck with any chill or shivering, but, ere, he had proceeded far, was suddenly seized with violent pain over the right eyebrow, as if some immense weight were pressing on that part of the brain. This, as far as he himself could judge, was unattended with any impairment of the intellect, though, naturally, with great depression of the spirits; it was soon followed by numbness and tingling of the same side of the face and left extremities; on touching these parts with the other hand they felt somewhat colder; sensation was soon almost entirely gone, for he could not feel a hard bite of the right side of the tongue or right cheek, nor did pinching the same side of the body cause any pain. Voluntary motion was not in the least impaired, though the right hand, owing to its want of sensibility, afforded little assistance in groping along the narrow passages; the difficulty of progression which might have attended walking in an open space, was not remarked in the cave, where, from the character of the place, the steps were short and irregular. That there was no distortion of the face, or lameness, was manifest from the fact that he was able so to govern his movements, that no one perceived how he was affected, though it caused him not a little alarm, both from the strangeness of the symptoms, and knowing that they might result from effusion of pus on the surface of the hemisphere from the diseased temporal bone. The symptoms lasted upwards of twenty minutes, until the party left the cave, was again exposed to the warmth of the sun, and began to take active exercise, when sensation soon entirely returned; but the violent headache remained during that and the following day. The same person, subsequently, and under similar circumstances, had attacks like those just detailed, but the symptoms were less marked, and the anæsthesia was on the opposite side of the body; so also the pain in the head, which was as completely localized over the left eyebrow as on the former occasion it had been over the right.

It is curious to observe in these cases of anæsthesia, that not only does the skin lose sensation, but the mucous membranes, the muscles, and other parts, do the same: hence the cheeks may be bit, the mucous membrane of the bladder does not stimulate its sphincter to contraction; hence the urine dribbles away; a catheter may be passed into the urethra, or a finger into the rectum, or irritating particles into the eye, without the patient's knowledge; the mouth and nose, though they remain susceptible of taste and smell, will not perceive pungent stimuli, as ammonia; and a case is related of a man who, falling with his spade, broke his arm; he heard the crash, but thought it was his spade only that was broken.

The following may be stated as the causes, when the complaint does not depend on a local affection:—

1. Sudden exposure, when heated, to cold; the susceptibility being increased by previous debility.

2. The influence of noxious vapours, as air loaded with carbonic acid.

3. Sanguineous effusion.

4. Serous effusion.

5. Effusion of pus on the brain, as from a carious temporal bone.

The three causes last mentioned, evidently, will not account for our case, the symptoms of which were too evanescent to be explained in this manner. The two former, both of which would cause venous congestion, will partially account for the attack; but even these do not serve to explain its hemiplegic character, or the absence of paralysis of motion.

Pathology.—Cases of simple anæsthesia are rarely, if ever, fatal; hence no opportunities of making examinations are afforded; but the different cerebral affections are so interwoven the one with the other, that the pathology of one class will go far to explain that of another. Apoplexy is often fatal, and presents many marks of similarity to the case under consideration. When this does not result from serous, sanguineous, or purulent effusion, or softening, which are by no means invariably present, congestion is the only morbid appearance found; this may be either arterial or venous: when the former, the patient has usually been strong and hearty, with full action of the heart while the symptoms lasted; when the latter, there is feeble action of the heart, coldness and exsanguineous state of the surface, debility and faintness, which were all present in our case. How this venous congestion produces the further symptoms of anæsthesia, &c., whether by gangrene or by the presence of the highly carbonized blood in contact with the brain, time will not allow us further to consider.

The author next dwells on the analogy which existed between simple anæsthesia, anæsthesia combined with loss of motion, and apoplexy, and the three different stages through which a person passes while inhaling ether. The treatment of a person rendered insensible by ether would also be similar to that of one labouring under paralysis from venous congestion.

The paper led to some discussion, in which Mr. Salter and others took a part.

Mr. Salter believed the symptoms attributable to carbonic acid, and observed that cold destroyed the sensibility as soon as the motor power, or even before; in Napoleon's army, which perished around Moscow, most of the men died from apoplexy. He thought there were four epidemics of cerebral diseases on record, one happening at the siege of Vienna, when twenty out of twenty-five children were seized, after a few minutes, with hydrocephalus. In some parts of Germany, more recently, an epidemic of arachnitis had been noticed.

Mr. G. Smith would, as connected with the subject of discussion, make known a fact which fell under his own observation during the last summer; viz., an epidemic among some horses in a part of Somersetshire, when three horses grasing together were attacked with hemiplegia of the left side, but recovered by the use of bleeding and medicines.

Several other members took part in the discussion

ON THE NEUTRAL OR PRISMATIC VARIETY OF THE DOUBLE PHOSPHATE OF MAGNESIA AND AMMONIA; AND ITS ARTIFICIAL SEPARATION FROM THE URINE.

By ROBERT VENABLES, M.B., &c.

Students and others commencing the study of urinary deposits or sediments, and their microscopical appearances, have frequently represented to me, that they find a great difficulty in speedily obtaining specimens, more especially of the neutral or prismatic double phosphate of magnesia and ammonia. The addition of *ammonia*,

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unless most carefully and dexterously managed, seldom or never succeeds in precipitating the *prismatic* salt; and the inquirer is often obliged to await the chance of urine, with which the prisms are voided, or the more tedious process of spontaneous formation in the urine after evacuation, by the decomposition of some of its own principles, particularly the urea. Formed thus slowly, by the gradual conversion of urea into carbonate of ammonia, it appears as an iridescent pellicle or film upon the surface of the urine. This process, however, often proves so tedious as to fatigue and exhaust the patience; further, the prisms formed under these circumstances become so intermixed with the products of putrefaction, that their appearance is obscured, and their brilliancy and beauty impaired.

Urea, in certain circumstances, undergoes decomposition, being converted by the appropriation of the elements of two equivalents of water, and a re-arrangement of its own into carbonate of ammonia, thus:—

	N	C	H	O
1 atom urea + 2 atoms water =	2	2	4	2
	..	..	2	2
	2	2	6	4

Two atoms of carbonate of ammonia are composed as under:—

	N	C	H	O
2 atoms carb. acid + 2 atoms ammonia =	..	2	..	4
	2	..	6	..
2 atoms of carbonate of ammonia ..	2	2	6	4

Thus, then, it is clear the one atom of urea and two of water are capable of such a re-adjustment of their elements as to form two atoms of carbonate of ammonia. Now this is what takes place in urine abounding in urea, and left to the spontaneous reaction of its own constituent principles. The decomposition is determined or hastened by the action of the atmosphere, the oxygen of which excites a sort of fermentative process in the mucus or some other of the animal principles, the constitution of which disposes them to the fermentative process. By this means a sort of *catalytic* motion is extended to the urea, and its conversion into carbonate of ammonia the result. The newly-generated salt either assists, with its ammonia, in the formation of the prismatic phosphate, or at all events causes its separation from the urine. The more slowly these changes proceed the larger and the more beautiful the crystals, but the more likely to be intermixed with and obscured by foreign matters; (a) but time is often of consequence even for practical purposes.

The agent which I employ is a diluted solution of the ordinary sesqui-carbonate of ammonia of the shops. The proportions from *half* a drachm to *one* of the salt dissolved in one ounce of rain or distilled water. If a little of this solution be added to urine, not too high coloured, and of specific gravity from 1018 to 1025, the upper surface, in the course of two or three hours, will be found to be covered with a film of the prismatic phosphate, and the sides of the vessel thickly studded with minute crystals of the same salt. It should be recollected that the double phosphate separates from urine, which exerts an *acidulous* reaction upon litmus-paper; consequently, the addition of the ammoniacal solution should not proceed beyond neutralization; and, indeed, had better stop short of complete saturation, a slight degree of the acidulous reaction being retained.

So effectual is this reagent that the prismatic crystals may be evolved and demonstrated on the instant. Thus, if a single drop of urine be placed on a glass slide, and to it a small drop of the solution be added, after two or three seconds, if placed under the microscope, minute crystals of the double phosphate will be seen. The crystals in this case are very minute, and require a *deep* objective to bring them out. Under an inch-and-a-half object-glass they appear as dark spots, (a) sometimes almost black; but with a half or, still better, a quarter inch focus, they are brought out well-defined, and developing in the most distinct manner the prismatic forms.

The triangular prism is the form more commonly assumed by the ammonia phosphate, under the ordinary modes of formation; but the minute crystals evolved by the foregoing process seem, so far as I have observed, to assume rather the form of the square or qudrilateral prism: the triangular being comparatively rare. These crystals, too, are sometimes curiously marked. The central lines connecting the edges which bevel off are sometimes marked with lines which cross each other like the letter X; in others they present the appearance of two crescents or semi-circles, with their convexities opposed to, but in contact with, each other. I have also seen this latter appearance so modified as closely to resemble the small Greek letter κ (kappa).

Presuming that these few hasty remarks may prove interesting to some of your readers, I beg to forward them to you, should you deem them worthy a place in your journal.

5, St. Vincent-place, Islington, Nov. 27.

(a) In the hands of the experienced, these causes of obscurity may be got rid of by washing, &c.; but a detail of the method forms no part of the objects of this paper.

(a) These sometimes glisten when, by the motion of the reflecting mirror, the light is made to pass rapidly through them.

(b) Sanitary Report from the Poor-law Commissioners.

REMARKS ON THE UNHEALTHINESS OF TOWNS.

"THE GREATEST NATIONAL BURDEN IS THE FEVER TAX."

By JOHN CHARLES HALL, M.D., M.R.C.S., &c. &c. &c.

"Volet hæc sub luce videri,
Judicis argutum quæ non formidat acumen."
HOR. *Ars. Poet.*, ver. 363.

Public meetings are called, commissioners to investigate the condition of our cities, towns, and villages appointed; reports are presented to Parliament conveying the appalling information that every year about sixty thousand human beings are cast into the grave by causes man has it in his power to remove; and, six years ago, a report was placed in the hands of every peer of the realm, and every member of Parliament, informing him that "the annual slaughter in England and Wales, from preventible causes of typhus, which attacks persons in the vigour of life, appears to be double the amount of what was suffered by the allied armies at the battle of Waterloo." (b) One unacquainted with what has since taken place, would expect us to add that immediate steps were taken to remove the evils existing from one end of England to the other. What is the fact? It is now about seventeen years since the cholera visited this country. It was brought forth amid poisonous effluvia of every possible kind. Its cradle was formed of filth; its diadem of the results of the most disgraceful negligence; in England, the throne of this awful destroyer was reared, where it ever is, in the back streets of our larger towns, amid the dirt and wretchedness, the reeking abominations ever to be found near the dwellings of the poor. What was the result? The fear of death was then at the door of every man, and what ought to have been done years ago was now attempted. The hand, however, of God was not "shortened that it could not save;" the prayers of the nation were heard, and, by His providence, we were delivered "from the pestilence that walketh in darkness, and the destruction that wasteth at noonday:" for puny were our efforts to arrest its progress, and truly "vain was the help of man." But have we gained by experience? did the fatality of the disease teach us to work against the possibility of its occurrence, by removing the causes of it, and thus depriving the cholera of a habitation and a home? Alas, no! we hear of the disease again journeying towards England; before many months, in all human probability, it will again have cast the blue and icy mantle of its life-destroying touch over thousands of our countrymen, for the cholera will find us as unprepared to meet it, as before; the odours emitted from our over-crowded and pestilence-producing graveyards, cry "Welcome! welcome!!" and the badly-constructed sewers, the open kennels filled with putrefying filth, the abominable cesspools, the nightmen's yards, and the mountains of filth, dirt, dust, ashes, mixed with decaying animal and vegetable remains, to be found in every city and large town in England, echo the invitation. It may be well to state, at such a moment as this, that, during the last visitation of the cholera, 11,018 cases occurred in the metropolis, and of these 5745 recovered, and 5273 died—about fifty per cent. of the whole, or one out of every two persons attacked: a very frightful rate of mortality, but not greater than we had a right to expect, when we call to mind the peculiar condition of the inhabitants of London, and the enfeebled state of the poor—a necessary result of bad clothing, unwholesome food, gin-drinking, and the perpetual breathing of the poisoned atmosphere by which they are surrounded.

But these are topics I will urge no further; in another place (a) I have ventured to place them before the world, and to defy the advocates of the present state of things to contradict them. I have appealed to their humanity, their love to their neighbour, and their fears, apparently without effect. I must now take another view of the subject and attack the filth-of-towns party through the only vulnerable gate, their pockets; and I do hope that, if we succeed, in the pages of this widely-circulated and universally-read journal, in showing that the fever tax is the greatest burden the rate-payers have to bear, that the last objection—"who is to pay for the carrying out of sanitary reform?"—will be removed; and even the members of our town councils, who prate so loudly, but know so little of the subject, will be induced to join the League now fighting against that great enemy of mankind, Typhus Fever, and the parents producing it.

And here permit me to address a few words to the members of my own profession, the first great advocates of the sanitary movement. All may not have the time, or perhaps the inclination, to publish to the world the facts that daily come before them of the sin, the misery, the truly awful wretchedness that the want of common comforts—common decencies I ought to have written—in the houses of our poorer brethren occasions. But we all have it in our power to repeat the tale of woe as we pass from house to house; we are then listened to; no patient refuses to hear his medical attendant, for the very fact of employing him proves how great the confidence reposed in his skill; and we may thus become the missionaries of improvement, and may accomplish more for the Sanitary Reform Bill than all the lectures that have been delivered, or all the letters and pamphlets that have been written. Let us, my friends, all feel it as a sacred duty to labour in making known this startling truth, that in narrow streets, in which a crowded, squalid, wretched population exist, inhabiting neglected and badly ventilated dwellings, surrounded by every possible depôt for the production of disease, there, most assuredly, will fever exist; in fact, from such back streets it is never absent, and thus, from its permanence, becomes more fatal even than the cholera. (b) The districts thus unhealthy in the metropolis and larger towns are well known; the effects are known also. It is known as certainly as the large red cross on the door, and over it "Lord have mercy upon us!" in the days of the plague, denoted that house to be visited by the pestilence, that in

(a) "Letters to the *Times* on the Unhealthiness of Towns." By John Charles Hall, M.D.

(b) The deaths from epidemic, endemic, and contagious diseases, in other words, from want of sanitary regulations, were—1840, 76,064; 1841, 63,148; 1842, 64,295.

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all densely-populated neighbourhoods, where the back streets are dirty and narrow, the housel badly ventilated, and also without sewers, wil, most assuredly be found, as we have before said those diseases which spread from such abodes to the mansions of the rich. Here, too, are the congenial abodes of drunkenness, idleness, profligacy, crime! Here recruits are daily enlisted and drilled, not only for the workhouse, the hospital, and the untimely grave, but also for the gaol and the gallows; for filth, destitution, and crime herd together—they are naturally congenial and inseparable companions.

I now proceed to estimate the burdens of the fever tax; and yet this is hardly a question that admits of being argued after a pounds, shillings, and pence fashion. With the well-known fact before us, that every year thousands are swept into the grave by the want of proper sanitary regulations in our large towns, the means for preventing the evil, and not the cost, ought to be the first and only object of attention. It has been proved unquestionably that each year in England and Wales 35,000 of our countrymen are snatched from the land of the living by causes that are known, and which might have been years ago removed. We see monuments erected to those who have fallen in battle; we read on the pages of history of the dreadful affliction that was occasioned by Trafalgar and Waterloo, the number of families of distinction plunged into mourning by the loss of sons who perished amid the sound of trumpets, the beating of drums, the waving of banners, and what are termed the glories of war. But, unnoticed, unwept, and unmourned by the rich and great, every year in the United Kingdom, at least, 60,000 are murdered by influences the advocates of sanitary reform have long been labouring to remove, but in vain! Look, reader, for a moment on this mighty mass—contemplate the large space of ground on which it is standing, and then call to mind the awful fact, and realize the miserable truth, if you can, that in one short year, in this kingdom, such a mass of your fellow-creatures—men, women, and children—are taken away (and that, too, by causes which need not exist) over and above those who must die in the ordinary course of nature. As I look upon those graves, I can hardly refrain my indignation whilst I ask, is this a question that ought to be considered as to the expense that will be incurred in our efforts to give to our poorer friends those blessings which God has so largely provided for the happiness and comfort of all, and which can only be enjoyed by releasing them from those chains of physical corruption by which they are at present so painfully bound down?

There is not even the miserable gratification (if any mind be capable of deriving satisfaction from such a source) that by this large amount of deaths an increasing population is kept within due bounds; just the contrary is the result, as proved by the elaborate calculations of M. Mallet and M. Quetelet, and the praiseworthy exertions of Mr. Chadwick. In Manchester, where one-twenty-eighth of the whole population is swept away every year, the registered births amount to 1 in 26 of the population; in the county of Rutland, where the proportion of deaths is 1 in 52 of the population, the proportion of births is 1 in 33. In the worst and lowest districts of Manchester, of 500 children born, at least 285, or more than one-half, will have died under five years of age. In some streets of Leeds the mortality amongst infants is much in the same ratio; and, speaking of similar facts, M. Mallet remarks, they exhibit "proofs of a population little advanced in civilization, ravaged by epidemics—a population in which the influences on infancy are murderous, but where the very great mortality in infancy is more than compensated by a very high degree of fecundity."

There is another view of this question, which has not, perhaps, been sufficiently insisted on in estimating the loss and cost to a country which must result inevitably from the neglect of proper sanitary regulations—the deterioration of the strength of the population. We have already stated that the want of cleanliness, &c., exerts its influence most heavily in the dwellings of the poor; from this class our army and navy are supplied; the strength of this country is dependent upon the healthy condition of the labouring classes, for labour alone gives riches to a nation, and the only riches she can call her own.

The very important general fact, that the test of strength and prosperity does not depend upon numbers only, has been very clearly established by examining individuals of different classes. M. Villermé states that the difference of strength between classes such as those in which we have seen that the value of life differs (a) is well known to the officers employed in engaging recruits for the army. At Amiens the result was "that the men of from twenty to twenty-one years of age were more frequently found disqualified for military service, from their stature, constitution, and health, as they belonged to the poorer classes of the manufacturing labourers." In order to obtain 100 men fit for military service, it was necessary to have no less than 343 men from the poorer classes, whilst 193 conscripts sufficed of the classes in better circumstances. (b)

The evidence presented to the House of Commons, which was collected by the Factory Commission of Inquiry, proves that fewer recruits of the proper strength and stature, for the army, are now obtainable in Manchester than heretofore. Sir James M'Grigor informed Mr. Chadwick, that a corps levied from the agricultural districts in Wales, or the northern counties of England, will last longer than one recruited from the manufacturing towns—from Manchester, Birmingham, or near the metropolis. So great and permanent is this deterioration—the result, too, be it remembered, of improper sanitary regulations—that out of 613 men collected from six manufacturing towns only 238 were passed as fit for service. (c) The chances of life of the labouring classes of Spitalfields, are, perhaps, amongst the lowest of any of the unfortunate inhabitants of the back streets of the towns of this country; they are decayed in their bodies, and are rapidly descending to the size of Liliputians. You could not raise a grenadier company amongst them all. (d) Mr. Dunce states, that "the inhabitants of Bethnal-green and Spitalfields are much deteriorated in size and appearance within the last thirty years," and attributes it to "bad air, bad lodging, and bad food." The sanitary condition of the inhabitants of Bethnal is truly awful. I have a report, which has been expressly made for me by an inhabitant, on my table, and, did I not know such to be true, I should almost be inclined to doubt, that in the metropolis of a Christian country, such abominations could have been permitted in the nineteenth century. (e) This part of our subject is worthy a most careful investigation, and cannot be too attentively examined by the members of the legislative assembly.

(a) With females the expectation of life, in Whitechapel, is 34·3; males, 31·0; whilst in St. George's, Hanover-square, it is, for females, 39·7; males, 37·4; showing a difference of about six years in the probability of life in favour of the inhabitants of the best locality.

(b) M. Quetelet and M. Villermé, on the authority of M. Tenon, "Annuaire de l'Obs. de Bruxelles."

(c) For additional information consult the Sanitary Report from the Poor-law Commissioners.

(d) See Dr. Mitchell's Report of the Handloom Weavers.

(e) In my work "On the Animal Kingdom, and Unity of our Species," published in 1840, by Messrs. Whitaker, I have endeavoured to exhibit the influences of adverse sanitary circumstances, in making whole tribes become deformed or stunted; this appeared to me particularly true with regard to the Bosjesmans, or Bushmen, who were plundered of their property, by the early Cape settlers.—See pages 136 to 142.

The peculiar burdens resulting from unnecessary deaths must be considered in no partial view; the magnitude of the subject entitles it to the most minute dissection, and we proceed, therefore, to the demonstration of its heart-rending details. It will be necessary—in order to show that a proper measure of sanitary reform, so far from proving an additional tax, will be a considerable saving to the nation, and that, after all, the fever-tax is the greatest incubus on the industry of the country—not only to glance at the expense caused by medical attendance (a very trifling sum, under the present most infamous system) upon those who die of fever, by parochial relief to the widows and orphans thus left destitute, but also the cost of providing for the many cases that recover, for the recoveries, even under the most unfavourable circumstances, always bear a considerable majority to the deaths. From the report of the Poor-law Commissioners we learn, that in one year 112,000 orphan children received relief from the poor-rates, and in the same year 43,000 widows were chargeable on the parish funds. Now, premature widowhood, and orphanage, is one of the most fruitful sources of pauperism, and at the same time one of the most lamentable, and also one of the most constant, drains on the pocket of the rate-payer; any one taking the trouble, will ascertain that the widow, where there are children, generally remains for ever a pauper—remarriages amongst those who have children are very rare, in many unions they do not exceed one case in twenty; in others, not one case in thirty.

The late Dr. Cowan has given us a truly interesting account of the pecuniary burdens on the rate-payers of Glasgow, arising from fever. He says it "is not possible, from the data before him, to give anything like an accurate calculation of the sums spent in Glasgow, during the last twenty years, for the treatment of fever." To prevent the possibility of a charge of exaggeration, the following calculation falls considerably under the amount:—

1. Cost of the Fever Hospital ..	£8,566	7	9
2. Temporary hospitals, and maintenance of patients in them	5,000	0	0
3. 21,691 patients at 30s. each, treated at the cost of the infirmary	32,536	10	0
	£46,102	17	9

But, then, we must add the cost of treating the poor at their own houses; the demands upon the poor-rates for the support of the families of those suffering from fever, during convalescence, as well as during the continuance of the disease; and each individual attacked by fever will, on an average, be more than six weeks out of employment; and to this must be added the sums paid for the fatherless children and widows of those who have died from fever; arising, let it never be for a moment forgotten, from causes we have it in our power to remove. Think, also, of the woe and suffering this state of things must occasion, both to individuals and to families. In the report presented to Parliament by the Poor-law Commissioners, page 209, it is calculated that the loss and cost of fever cases to the town of Dundee, taking an average of seven years, is yearly £25,096. 13s. We have the authority of Dr. Southwood Smith for stating that in the district of St. George's, Southwark, out of 1467 persons who have received parochial relief, 1276 are reported to have been ill with fever—in fact the whole, with the exception of 191. The Bethnal-green and Whitechapel Unions had to pay, extra, in one quarter, for fever cases £619. 19s., or at the rate of £2467. 16s. additional for the whole year. Truly has Dr. Lyon Playfair remarked, that millions are paid annually in England to sustain the attacks of preventible disease, and not one pound to remove or weaken the sources from which these attacks gain strength; and we have the same high authority for concluding the pecuniary loss and misapplication of money to the inhabitants of London, from a neglect of

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proper sanitary measures yearly, amounts to £3,264,531.

I cannot refrain from thinking that the majority of my countrymen have "eyes but see not;" at any rate they do not look properly at the evils by which they are surrounded, otherwise a cry would long since have arisen for their removal, which it would have been impossible to have resisted. I wish, however, and I feel humbled in taking such a view of the subject, to take a narrow and pecuniary ground, and to ask the ratepayers of England to consider the question of sanitary reform as a question affecting their pockets, to look at its dry statistical details, to call to mind that it has again and again been proved beyond the power of contradiction that the sick and dead tax yearly levied on this country amounts to £14,873,931. This appears a very large sum; but, remember, we have annually 60,000 unnecessary deaths, that twenty-eight cases of preventible sickness occur to each of these deaths. It follows, then, that the number of cases of sickness that can be prevented every year in the United Kingdom will reach to a no less number than 1,680,000.

It would be very easy, did time permit, to refer to the advantages that have, in certain towns, followed the carrying out, however imperfectly, of sanitary regulations; and the evidence is most conclusive to prove beyond the shadow of a doubt that thousands of valuable lives are every year lost to us by want of drainage and sewerage, and the proper ventilation of the houses of the poor, and that the mortality at once decreases when the causes are removed which produce it. If we turn to Liverpool, which the last Report of the Registrar-General so well describes as "created in haste by commerce, and reared without any very tender regard for flesh and blood," we see how fearful has been the lesson! how awful the results of crowding her poor into cellars! Had we seen last year the piteous spectacle this fine city presented, "with the floating lazarettos on the Mersey, the workhouses crowded with destitute paupers, the three large fever sheds, which will hold three hundred, nearly full of patients, and the fever extending to the higher classes," we should begin to estimate the evils of the present system, and at once be ready to exclaim, with the inhabitants of Liverpool, the fever-tax has been our greatest burden.

Here, for the present, I must pause, and will only add, in whatever aspect the subject is viewed, whether as regards the annual loss of life and health arising from diseases which are produced by the want of proper sanitary regulations, or simply as a matter of cost to the pocket of the ratepayer, it will be clearly seen that, whilst on the one hand those who wish to retain any claim to the character of Christians are bound by the dictates of humanity, by the commands and precepts of our holy religion, not only to remember the present awful condition of the poor, the misery, the wretchedness, the sickness, the deaths which annually occur in this country from causes that admit of being quickly removed, but also most earnestly to assist Lord Morpeth and a willing Government to provide means by which these evils may be for ever eradicated; on the other it is seen that, looking at the question in a pecuniary point of view, as one affecting the ratepayer, whatever the cost of carrying out the necessary sanitary reforms, the public must be considerable gainers, for the most careful calculations prove the greatest tax on property and income arises from deaths and diseases, which an efficient cleansing and drainage of our cities, towns, and villages would for ever extinguish.

It is, then, manifestly, a duty we owe to our country and our God to do all in our power to hasten the coming of that happy age—and come it will—when the bright bow of social improvement, which, though seen as yet afar off, shall at no distant period encompass our country, giving to every inhabitant those blessings to which our poorer fellow-creatures have hitherto been strangers. Such a labour of love as this ought to enlist our warmest sympathies. It is a task well worthy our noblest efforts; it seeks to rescue the babe from death—the parent from a premature grave; in a word, to solve that mighty problem—how can we make the greatest number happy? Such deeds, however, require no panegyric from my pen: they are enshrined in the heart which gives them birth; and in our hours of sorrow, in the day of trial, and on the bed of death, sweet will be the balm of their consolation, and precious will be the remembrance of them.

Grove-street, East Retford.

HOSPITAL REPORTS.

NORTHERN INFIRMARY, INVERNESS.

Case of Diffused Aneurism at the Bend of the Arm. Under the care of Dr. S. Chisholm.

Grace Robertson, aged twenty-two, from Tain, recommended by Dr. Cameron. Admitted May 28, 1847. Patient states that about four years ago, Mrs. Ross, a midwife in Tain, made an attempt to bleed her at the bend of the arm, but no blood flowed from the wound. A few hours afterwards the whole arm, from the fingers upwards to the axilla, became discoloured and swollen. This gradually disappeared, but about two weeks after, a small pulsating tumour became perceptible at the bend of the arm. It did not, however, at once prevent her from performing the duties of a house-servant, and in that capacity she some time after went to Glasgow. After her removal to Glasgow, the tumour gradually increased and disabled her from service, so that she was induced to enter the hospital there, where she remained for six weeks, under treatment by pressure and bandaging, but without deriving any relief. She now became anxious to return home to Tain, and did so in January last. Four weeks before admission into the Inverness Infirmary, and while engaged in washing, the tumour increased suddenly, and the arm became very painful. On admission, the arm presented the following appearances:—There is a large pulseless, diffused, and livid swelling at the bend of the right arm, extending up to near the middle of the arm, the arm itself being flexed and rotated inwards. The tumour is very painful on pressure, and the forearm and hand are slightly œdematous.

31. After a consultation on the case, the brachial artery was tied in the upper part of the arm, by Dr. Chisholm.

℞. Liq. ammon. acit., ʒij.; mur. morph., ʒss.; syrup. sinip., ʒj.; aq. menthæ, ʒss. *m.* ft. haust. hor. somn. sumend.

June 1. Patient going on well, she having passed a tranquil night, with much less pain than usual.

℞. Ol. ricini, ʒj.; aq. cinnamomi, ʒjss. *m.* stat. sumend.

2. Temperature of the forearm increased; the aneurismal tumour becoming pale, softer, and less.

3. Progressing favourably.

Hab. haustus sennæ cum sulph. magnes.

6. Tumour assuming an inflamed appearance, and becoming more painful.

7. Tumour inflamed and painful, with sickness and febrile action, preceded by a rigor early in the morning. To have a febrifuge mixture, with a poultice to the tumour.

8. This morning there was a considerable discharge of grumous blood from the tumour. Operation. Wound healing kindly.

9. Offensive discharge of dark grumous blood from the aneurism, which has become much diminished in size. Sickness abated.

10. The discharge from the aneurism becoming coagulated, tumour diminishing, and the forearm and hand assuming a healthy aspect; pulse perceptible at the wrist for the first time; constitutional disturbance much less. The forearm and arm to be bandaged from the fingers.

11. Case progressing favourably; the aneurismal sac and contents sloughing away.

16. In consequence of the patient using her hand to adjust the bedclothes, hemorrhage, to the extent of a few ounces of blood, took place from the aneurismal cavity, but was speedily arrested by compression.

17. No return of the hemorrhage, and the case is going on well.

19. Hemorrhage came on again, on which the aneurismal cavity was freely opened up, and the opening in the artery exposed; but, from the diseased state of the parts, and the oozing of the venous blood, it was found impossible to get a ligature round the artery so as to retain its hold. Under these circumstances a small curved needle was passed in front of the opening in the artery, and the parts brought together by means of the twisted suture, a thread having been put into the eye of the needle for withdrawing it again. A dossil of lint was put into the wound over the needle, and secured with a bandage, with which the forearm and arm were rolled from the fingers as formerly.

21. Dressings removed and wound looking well; patient has felt the arm tolerably easy since it was handled on the 19th.

23. Hemorrhage recurred at twelve o'clock at night, when the patient was asleep; dressing removed, and needle withdrawn, after which a bit of dry sponge was introduced into the wound and secured by bandage.

24. The patient feeling comfortable, and the temperature of the arm natural, the compress was left undisturbed.

25. Compress removed and wound examined, without any further recurrence of hemorrhage; the wound filled with lint, and the arm kept bandaged.

28. Dressings removed; no further hemorrhage; wound suppurating and granulating favourably.

July 16. Wound at the bend of the elbow nearly closed; pulse at the wrist quite perceptible.

24. Dismissed cured.

The patient presented herself to Dr. Chisholm some weeks after leaving the hospital, having the perfect use of her arm.

DR. BUSHNAN'S VISIT TO DIEFFENBACH. TENOTOMY AND MYOTOMY.

DEATH OF DIEFFENBACH.

[To the Editor of the Medical Times.]

(Continued from p. 31, vol. 16.)

Sir,—After a long silence, occasioned by an extended continental journey, I beg to conclude my brief notices of my visit to Dieffenbach, and of the operations I saw him perform; and among these none seemed to me to be more important than those undertaken for the relief of seriously distorted limbs, and other deformities of the human body. And when we consider, on the one hand, that neither simple orthopedic treatment is of itself capable of relieving deformities; nor, on the other, that these are to be cured by a species of slight of hand similar to that of a celebrated surgeon who, in one case, divided, I am afraid to say how many muscles and tendons—the unfortunate patient, however, died from the operation—we cannot be surprised that tenotomy and myotomy have been generally opposed by the profession. But how soon would the views of an opponent to the system under consideration be changed, if he were to see, as I have seen, a patient who but a few weeks before was limping on crutches, come out of Dieffenbach's hands completely cured, no longer a burden to himself and to his friends, or a disgusting object for public commiseration! And how is this? he would ask: for well he knows that neither the mechanical manipulation of the limb, if I may use the expression, by complicated instruments, nor the section either of muscles or of tendons, are, of themselves, individually capable of removing deformities. But Dieffenbach neither rejects the one nor adopts the other; on the contrary, he combines the two into one happy

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, and assigns to each its proper place in the ient of distorted members in such a manner is efforts have been attended with the most nt success. From the contraction of a toe, considerable that it merely impeded the adjustment of a boot, to that of the prin- limbs, which interfered with their motion roduced unsightly deformities, I have seen ost effectual cures by Dieffenbach's ope- s. Clubfeet of every description; con- ns of the knee, hip, and elbow joints at or acute angles: all these I have seen ed to their normal form and use. And e these surprising and almost invariably sful results? Simply because no one case ated exactly like another. It is one of nbach's greatest qualities to individualize ly and even during his operation; and here, stration, I might relate a case of an im- tumour of the face, which was supposed e destroyed the eye. In the course of the ion for its removal, an assistant observed he eye was not destroyed, and he said so. moment Dieffenbach changed his whole and managed not only to preserve the , but even to form a species of eyelids to t it! But to return. It is not that this or endon is to be divided in any given con- n, and according to a certain theory. No: ow this and now that; now more, now less; lways as little as is possible. Another of accounting for Dieffenbach's happy re- s, that he is never tempted, like some sur- , by the love of display; he never in these forces the limb immediately into its proper n, so as to astonish his class by a kind of ulous conjuring; on the contrary, some always elapse before he commences any edic treatment further than that of a slight ping bandage. The reason for this be- obvious when we consider that the matter ited between the cut extremities of tendons ses great elastic powers. It is thus only the divided tendons are so reunited that rts are in a condition to be exposed to the sion necessary to reduce them to their nor- rm.

ave seen Dieffenbach operate on the same n a child of fourteen days old, and a man ty years. I did not remain in Berlin to ss the result of these cases, both of which of a very high degree of clubfoot; but nbach assured me they would both be suc- l. The museum attached to the Klinik is ich in models and drawings of these af- ns, and the results of operations of the extraordinary descriptions; and from among I have selected two cases which have al- been described by Dieffenbach, (a) and may stimulate others to follow his bright ple.

SE I.—Fedor W., son of a baker at Fur- alde, was born with pes equinus of the degree. In his early years he had crept l fours; and all endeavours to make him were frustrated by the position of his feet, were in straight lines with his legs. As he ced in life he learned to walk upon crutches. ne years old he was brought to Dieffenbach. at time the deformity was threatening to ad- into the fifth degree; the instep was yield- nd becoming altogether everted; it would have formed a sole for the foot. The distal mities of the metatarsal bones were turned vards and rested on the ground; the toes turned upwards, and the sole was concave, sponding with the convexity of the dorsum. heel was retracted, and the muscles of the hrunk and withered. The thigh was very and the pectinei muscles rigid from exces- extension. He walked as on stilts, leaning hole weight on his crutches, and bending rds.

e operation, which was performed in the nce of his Royal Highness the Prince of ia and his suite, consisted of the sub- cutaneous division of the tendo Achilles. The limbs were then lightly enveloped in bandages, and after a few days laid in Stromeyer's machine, and gradual extension had recourse to. In four- teen days after the operation the feet were at obtuse angles with the legs, and in two months they had acquired their natural position. The boy could now put the soles of his feet to the ground; but the limbs were still weak, and he could not stand upright without pain. The ab- duction of the thighs was greatly impeded by the rigidity of the pectinei muscles; these were, therefore, divided, and then free motion was esta- blished. The necessary orthopedic treatment was carefully pursued, and the boy was soon able to throw away his crutches, to walk alone, and without deformity.

CASE II.—Marie K., aged fourteen, Pes equinus of the right side. The foot formed one straight line with the shin; its form was altogether de- stroyed, and consisted of a shapeless mass. The tendo Achilles and flexor hallucis were divided. After a few days orthopedic treatment was re- sorted to, and the foot soon assumed a better form. In six weeks the cure was effected.

I could here relate many more cases, not only of the successful treatment of the pes equinus, but also the pes varus and pes vulgus, of all de- grees of intensity; and also describe the opera- tions for contractions of the knees and other joints; but space will not allow me to do so, and I will pass on to other matters.

What I have said concerning Dieffenbach's tenotomic and orthopedic treatment of con- tracted joints, applies equally to his myotomic operations for partial paralysis of the face, and also for the relief of those frequent cases of blepharoptosis, or palsy of the orbicularis pal- pebrarum, where the eyelids cannot be completely opened; and lagophthalmos, where the eye can- not be completely closed. I saw these operations performed; and several patients were exhibited to me in whom no traces of the operations they had undergone were to be remarked, or any evi- dence of these very disfiguring defects remained— defects which were dependent upon the dis- proportional forces of the two antagonists, the levator palpebræ superioris, and the orbicularis palpebrarum. In the case of a lagophthalmos, Dieffenbach protects the eye by a small piece of wood—in the case I witnessed, he cut it from the cover of a cigar-box—passed under the lid and up to the supra orbital ridge of the frontal bone; he then pierced the eyelid at its outer angle, passed a very narrow and slightly curved knife up to the levator palpebræ superioris, which with one stroke he cut through, and then withdrew the instrument at the point of incision. The in- stantaneous result was truly surprising: the eyelid was immediately closed, and the or- bicularis had regained its power. In ble- pharoptosis, in like manner, the too powerful orbicularis is divided; and both operations have been invariably attended with the most perfect success. In both, a careful orthopedic after treatment is practised.

Paralysis of one side of the face often becomes the subject of myotomy. In these cases Dieffen- bach divides the muscles of the healthy side. I saw such an operation performed on an otherwise healthy girl, whose mouth and nose were drawn towards the healthy side of the face, causing a hideous deformity. By a subcutaneous incision, the necessary muscles were divided, and the frightful disfigurement entirely removed. Or- thopedic means were had recourse to in order to ensure the elongation of the incised muscles.

This is, perhaps, the most fitting place to de- scribe Dieffenbach's operation for strabismus; yet his mode of operating and the success which has attended it are so well known that I need scarcely dilate upon them. I saw him, however, in one day, operate for S. convergens of both eyes, and S. internus of the left eye; and in all these the eyes were fixed, the muscles cut down to, drawn out with a blunt hook, and divided with a small and slightly curved pair of scissors with incredible rapidity. All were perfectly successful. A looker-on at an operation for strabismus is very apt to think it is so easy that any tyro might perform it; and so it is, as far as the mere exposure and division of the muscles are concerned; but I was never more convinced that these are the least important parts of the operation, than by observing how Dieffenbach, according to the circumstances of each particular case, cut through the muscles, sometimes entirely, sometimes partially; how he divided them sometimes superficially, sometimes deeper within the orbit; and also what various modifications he prescribes in the after orthopedic treatment. It is only by frequently witnessing it that we learn to know all its difficulties, and to conceive that, differing in degree as does stra- bismus in almost every case, how much expert- ness and calculation are requisite to determine in each case, where, and how far, the muscle is to be incised. Here lies the difficulty of the ope- ration, and here is the cause of its frequent failure.

(a) "Ueber die Durchschneidung den Sehnen Muskeln."

DEATH AND MEMOIR OF DIEFFENBACH.

I had proceeded thus far in arranging my notes, and proposing to accompany the reader through a wide extent of operations for hernia, ampu- tations, extirpation of tumours, extractions of polypi, refracturing of badly-set bones, the ope- rations for the cure of various fistulæ, and many other matters connected with Dieffenbach's Klinik, when the sad tidings reached me that this great master-mind was no more! He literally died in harness, having been struck with apo- plexy on the 11th of November, while in his lecture-room and in the presence of his pupils: in the very place where, for so may years, his lessons had been so greedily listened to; in the room where he had restored sight to the blind and given feet to the halt; where he had relieved so many from affliction; and where his fertile genius had so often struck out a path towards the relief of the most desperate maladies which all others had failed to observe. What a glo- rious death for such a man to die, and how mer- ciful! The aim of his life was his profession, and he died in the very midst of it; he was wont to say "I shall die on the field of battle." Perhaps the wish was father to the thought; at any rate his prophecy was fulfilled. His sudden death, too, was a merciful dispensation of Providence: for to a man of his temperament and active mind the confinement of illness and the inability to exercise his profession would, indeed, have been intolerable. He seems to have contemplated not only the manner of his death, but its speedy occurrence. It is not long since he told his wife that some day he would not return at his usual hour from the Klinik; and that Dr. Angelstein, his principal assistant, would come and inform her of his death. And so it happened! Doubtless he was well prepared for the great change. Can it be, that there is sometimes vouchsafed to us a shadowy foreshowing of events to come—that a misty future sometimes opens to our gaze to guide us, and direct us, and to do us good?

On the morning of his death, Dieffenbach was quite well, in his usual health and spirits, and took exercise in the riding-school with his wife and daughter; but for some time he had been greatly interested and excited by the affairs of Switzerland, and had frequently expressed him- self very warmly in favour of the liberal party; and to this undue excitement may, perhaps, be attributed the proximate cause of his sudden death. He repaired as usual, at two o'clock, to the Klinik, where he found two French physi- cians waiting him. To these gentlemen he pre- sented a young man on whom, the day pre- viously, he had operated for aneurism. He seated himself on his usual sofa, and explained to them the steps of the operation. Suddenly he ceased speaking, and his head fell forwards, as if he was whispering to one of them. But alas! his voice was hushed for ever. He had ceased to live.

Surgery has experienced the greatest loss by the death of Dieffenbach; while to the University of Berlin it is irreparable; he was one of her brightest ornaments, and a teacher who promised

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to raise her to the highest rank as a school of medicine. None are living who can supply his place: for although England, France, and Germany can boast of many surgeons who may surpass him in erudition and equal him in the power of doing what others have done, yet, as there are none who possess his originality of professional thought, his power of seizing upon a principle, and his quickness in adapting a means to an end, so are there none who have done so much, or are likely to do so much, for surgical science as has done Dieffenbach.

I trust his great work on surgery, and another that he has left in M.S. on the use of ether in operations, and which cannot fail to be of the greatest value, may soon appear in an English dress.

It may be as well to mention a circumstance connected with this melancholy event, which threw, I may safely say, all Berlin into a state of the greatest excitement: it was currently reported that Dieffenbach was not dead, but that he lay in a continued swoon! This was partly owing to the fact that in cases of sudden death, and without any previous illness, symptoms of corruption are always long in appearing; and also that a well-known somnambulist had gone to the house of Dr. Holthof, Dieffenbach's son-in-law, and asserted that he was still in life. The report rapidly spread, and, strange to say, was generally believed. Some young practitioners, and especially Mr. D. clung to the belief; they insisted upon remaining with the corpse after it had been placed in its coffin, asserted that symptoms of life still remained, and even poured wine down the throat. I will not attempt to paint the distress such scenes have caused to the family and friends.

John Frederick Dieffenbach was born at Konigberg, in Prussia, in the year 1795. His father was professor of theology in the university of that city, and he himself was destined for the clerical profession. In the year 1813 he volunteered into the Mecklenberg cavalry, and accompanied that regiment in its campaigns. When the war was over, he again resumed his theological studies; but, becoming a student of the University of Bonn, he devoted himself entirely to surgery, under Walther. In 1822, he went to Paris, and placed himself under Larrey and Dupuytren, for the last of whom he always testified the most profound admiration. Leaving Paris, he established himself in Berlin, where the publication of several works, and the happy results of some very important operations, soon established his fame, and rendered his name one of European celebrity. In 1830 he was appointed to the Hospital of La Charité; and in 1840 he succeeded Gräfe as surgeon of the Klinik, which became both the scene of his greatest works and the theatre of his death.

His inaugral thesis before the faculty of Wurtzberg was upon the transplantation of parts of the human body; and rhinoplastic surgery ever continued to be his favourite branch of the profession, yielding him his greatest renown; and in this, indeed, he stood alone—the originator of numerous operations; the great master of rhinoplastic art; the creator and reformator of deficient and defective parts of the human body; and the obliterator of the most unsightly deformities. The greatest knowledge we possess on this subject we owe to him; and his book, translated into English in 1833 (Highley, London), testifies the value of the legacy he has left us; it is from him that future writers will borrow their best histories of the formation of artificial noses, lips, cheeks, and eyelids; and from his works that they will best teach how to remedy the harelip, the cleft palate, and a host of other disgusting deformities. The same may be said concerning his operations for contracted joints, for wry-neck, for squinting, for ununited and badly set fractures; indeed, I may ask, what branch of surgery is not indebted to Dieffenbach? He particularly delighted in the surgery of malconformation, and especially in those cases which had been declared irremediable by the old school; and those who have seen him in his Klinik can never cease to remember how rich he was in expedients even in the moment of operation; or to admire the address, the coolness, the presence of mind, and the confidence in himself with which he performed the task before him; and all this by such simple means, with such an absence of display and affectation, with no dread array of complicated instruments and unsightly machines, that one was led to wonder how, with so so little, such mighty things were done. The writings of Dieffenbach can give but a faint idea of the man himself, for his style of composition was anything but terse, and his sentences, even for a German, are long and laboured, and difficult of translation. He was altogether a man of action, and to be known must have been seen in his Klinik. He was, perhaps, more a man of genius than a man of talent—more actuated by instinct than by reason and volition; hence he was a bad dissembler, speaking his mind with such freedom and honesty that kept him from many high places to which men less worthy were appointed; and hence, too, like other poor children of genius, he was improvident. Although his income was considerable, he has left no fortune to his family, for his hospitality was great, and his generosity unbounded: tales of distress and of necessity were never told to him in vain, and of the many who solicited his assistance none left him unrelieved in the most effectual manner. His habits, too, were expensive, while his liberality was most unblushingly abused. He could never bring himself to ask a patient for a fee; and I have often seen those known to be well off in the gifts of fortune reward him simply with their thanks: and many of the crowned heads and sovereign princes by whom he was employed more frequently paid him with empty titles and glittering decorations than with substantial gold.

His remains were deposited on the 15th Nov., in the Werder Cemetery, without the gates of Berlin, and amid the uncontrollable expressions of regret of a host of citizens of all classes. The funeral procession was headed by a volunteer, and very numerous, band of musicians. Before the coffin—upon which, in its progress to the grave, quantities of flowers were showered, and coronets of "immortelles," touching emblems of a people's sorrow—marched many officers in full uniform, accompanied by the army surgeons, bearing upon cushions the orders and decorations which had been bestowed upon the deceased. Then followed the city clergy, the relations and private friends of the family, the rector and students of the university, the pupils of the Frederick-William Institution, and the medical men of Berlin. Then came the empty carriage of the deceased, calling forth loud lamentations from the crowd through which it passed. A long line of private equipages, headed by the state carriages of the King and the Prince of Prussia, closed the melancholy *cortège*. A funeral discourse was pronounced over the grave by Professor Sydow; and the service for the dead, chanted by the choristers of the cathedral, terminated this ceremony, so full of sorrow and regret, but so honourable to the memory of the deceased. "Requiescat in pace."

I am, &c. &c.,

J. Stevenson Bushnan, M.D.,
Fellow of the Royal College of Physicians of Edinburgh.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meetings of Nov. 15 and 22; M. Brongniart in the Chair.

Treatment of Vesico-vaginal Fistula.—Dr. Jobert forwarded to the academy four new cases of successful treatment of this obstinate disease. In these four cases the fundus of the bladder communicated with the vagina, through a large aperture which, in two cases, was placed immediately beneath the os uteri: they all were the result of difficult labour. The method employed by the surgeon of Hôpital Saint Louis does not merely consist in the displacement of tissues, or in the dissection of a portion of membrane, proportioned in size to the aperture. In his operation, the organ itself is to a certain extent displaced, after having been rendered movable by the detachment of some of its insertions. The vagina and bladder, therefore, change their relative positions; the lips of the most extensive fistulæ are thus united without any dragging, any dissection of flaps, or any of those details of the so-called "French" method which are frequently productive of gangrene.

Ergotine in Hemorrhage, by Dr. Sée.—We have on various occasions forwarded to the readers of the *Medical Times* extracts from the oft-repeated communications of M. Bonjean, an apothecary of Chambéry, to the Institute, on this subject, and also the remarks which fell from Professor Velpeau, who not only disbelieves the boasted efficacy of the drug in cases of hemorrhage, but advises surgeons to be on their guard, lest, placing confidence in an imaginary hemostatic, they neglect the more efficient means which art places at their disposal. Dr. Sée stated at the meeting of Nov. 22, that he had used ergotine in eleven cases of internal, and in one case of external, hemorrhage. In the former, the effects of the medicine were insignificant, and in the latter, negative.

Arsenic in Ferruginous Spas.—M. Chevalier communicated an analysis of the waters of Bussang: two litres and a half contain about one-fifth of a grain of arsenious acid.

ACADEMY OF MEDICINE.

Meetings of Nov. 16, 20, and 23; M. Begin in the Chair.

Rupture of the Spleen; Hemorrhage; Death.—(Case by Dr. Landouzy, Corr. Member of the Academy.)—A man, aged twenty-eight, of a strong constitution, was admitted into the hospital at Reims on Sept. 10, 1847, with the symptoms of typhoid fever. During the week which preceded his admittance he had suffered from headache, epistaxis, nausea, diarrhœa, and feverishness; he presented the lenticular eruption of fever, the abdomen was tender on pressure, and up to the 19th of September, the intensity of the disease gradually increased, when the case terminated fatally. On dissection, the characteristic alteration of typhoid fever was found in Peyer's glands, and about twelve ounces of dark fluid blood in the peritoneum. The spleen, six inches in length, was, on its external aspect, lacerated in an extent of one inch; its tissue was softened, and the peritoneum was free from any signs of inflammation.

The Salt Marshes of France. Report by M. Melier.—(Concluded.)—From what personal observation had taught him, the reporter was of opinion that, in themselves, the salt marshes were not insalubrious; but that, when they were not carefully kept, they might compromise considerably the health of the neighbouring population. The abandonment of salt marshes, without the adoption of particular precautions was most dangerous, and capable of producing fevers of the most severe character.

Cox's femoral ankylosis. By M. Maisonneuve.

The celebrated operation of Dr. Barton, of Transylvania, who, nineteen months after the consolidation in a vicious direction of a fracture of the neck of the femur, divided the bone and replaced the limb in its proper position, was repeated at the Hôpital Saint Louis, in February, 1847, by Dr. Maisonneuve, and with equal success. The patient was presented to the academy, and the following is a rapid sketch of the case:—

A young man, aged nineteen, became affected with Coxalgia on the right side: the joint after some months suppurated, and, the ligaments being destroyed, dislocation of the head of the femur occurred. In this new position ankylosis took place, the thigh being completely flexed upon the abdomen, the knee being almost as

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high as the corresponding shoulder. On the 23rd of Feb., the patient having first been deprived of consciousness by inhalation of ether, an elliptic incision, seven inches in length, was performed on the outer face of the thigh; the trochanter major was thus uncovered, and, with considerable difficulty, divided with a saw. At first the limb could not return to its proper direction, but it was gradually straightened, and less than two months after the operation the patient could walk with the assistance of crutches. The limb has acquired some strength, and, although still partially insensible from the section of the sciatic nerve, is gradually regaining sensation: it is shorter by three inches than the other extremity.

URINE IN TYPHOID FEVER. BY DR. MARTIN SOLON.

In this paper Dr. Martin Solon stated, that the urine of patients affected with typhoid fever was less abundant, more highly coloured, and heavier than during health, and that it preserved its acidity, but became speedily alkaline, on account of the large proportion of urea it contained. The quantity of this substance was often so great that nitrate of urea could sometimes be instantaneously obtained, without evaporation of the urine, and by the mere addition of nitric acid. This reaction might be predicted whenever the specific gravity of the urine attained 1·030 or 1·036. M. Martin Solon remarked that the various deposits observed in urine, and which formerly became the basis of the theory of critical signs, had ceased to be consulted, because they had too often been proved to be deceptive. Some of these signs furnished by the examination of the urine were, however, most valuable: thus, in transparent urine nitric acid might or might not occasion the formation of a deposit; the same could be said of those urines which contained saline precipitates; after filtration nitric acid might or might not produce a cloud; that cloud, constituted by the bi-urate of ammonia, was principally observed at certain periods of typhoid fever, and of other acute diseases, towards their termination, and was a critical sign deserving of notice. In the progress of typhoid fever the secretion of bile underwent considerable modification; hence the appearance of the green colouring matter of bile in the urine.

Albumen was observed in many acute diseases to form in the urine in a transitory manner, but it was in none so frequent as in typhoid fever; when albuminuria was noticed it was always in the worst cases, and the occurrence justified an unfavourable prognosis.

CHLOROFORM.

From a perusal of the *compte-rendus* of the Academy of Sciences, meeting of March 8, 1847, vol. xxiv., page 342, it is evident that M. Flourens, the secretary of the Institute, did make some experiments on animals with chloroform; but Mr. Simpson is the first who, having tried it on the human subject, pointed out its advantages over ether.

M. Blandin, M. Roux, M. Vidal, M. Amussat, have all operated upon patients rendered insensible by the new anæsthetic agent, and the results obtained are perfectly in harmony with those announced by Professor Simpson.

FACULTY OF MEDICINE.

LECTURES ON GENERAL PATHOLOGY, BY PROFESSOR ANDRAL.

Chapter I.

We devoted last session to the study of the elements of disease: we first laid before you a history of the alterations of the mediate and of the immediate principles by which our fluids and our solids are constituted; we then entered into an inquiry relative to those changes of the dynamic state of our organs from which disease can also arise; and in the last lectures we glanced rapidly at the forms and types of maladies, concluding the first part of our course with a description of that state which separates disease from health, and which is called "convalescence." We will now begin the history of those phenomena of the morbid state termed symptoms, first considering them merely in the light of abstract facts; and, afterwards, converting them into signs, by pointing out their connection with the art of diagnosis.

Let us first direct our attention towards the digestive organs; in the mouth we find several phenomena deserving of notice, and in its inferior region an important organ, the tongue, which may be modified in its circulation, its secretions, its sensibility, or its motility.

From the modifications brought on by disease in the circulation of the tongue, arise various changes of colour; for instance, a redness, which may be general or limited to the edges, apex, or centre of the organ; it may occupy only the papillæ, and at the same time its surface may be either dry or moist. The surface of the tongue may be smooth, as after desquamation of the epithelium; together with a change of colour, an alteration of size is sometimes observed: diminution, for instance, with redness, is indicative of disease of the stomach. The heat of the tongue may be increased, or may fall below its average standard; and in this latter case the organ acquires a purple hue, as in asphyxia and the blue period of cholera. Blood may also be extravasated on the tongue, and, drying up, leaves a black fuliginous deposit on its surface. In chlorosis, on the contrary, the part is paler than during health.

The secretions of the tongue may also be altered from the effects of illness. We find it sometimes dry, at others more humid than usual, and occasionally viscid. Universal dryness of the cavity is also observed, without being caused by diseases, as in persons who sleep with their mouths open, and may also proceed from moral causes, affecting the nervous system. From the deposition of mucus, of bile, or of blood, the tongue may acquire a white, yellow, green, or even a black colour. Accidentally, particularly when vigorous abstinence is observed, the organ may acquire an unnatural colour from contact with various substances—wine, for instance; when a yellow or white deposit has formed, the tongue is always acid, the saliva remaining alkaline. The centre, edges, or apex of the organ may be the seat of morbid deposits; it is frequent to observe red specks on a white tongue, or to see its edges red, and centre white; abundant mucilaginous and warm drinks, abstinence from food, and relaxation of the bowels from medicine, facilitate the deposition of these morbid secretions, to which some individuals are more predisposed than others.

Changes of the special or common sensation of the tongue are also observed; a sense of heat generally accompanies removal of the epithelium. Neuralgia is also met with, and taste may be diminished, abolished, or perverted.

The movements of the tongue are impeded by its being swollen or dry; when the nervous system is deeply affected, its motions may be tremulous, irregular, uncertain; they may even be abolished altogether, or only on one side.

Let us now examine the signification of these various symptoms in the different classes of diseases. In continuous pyrexiæ, the tongue furnishes more signs than in the intermittent; it assists in the distinction of forms, of complications, and of different degrees of severity of fevers, and leads to some therapeutic indications. In typhoid fever, for instance, the tongue is at first uniformly white, or dotted with red specks, and is generally humid, broad, and soft. In favourable cases, this appearance persists throughout the disease, but may also vary; in the saburral form, the deposits becomes thicker, and purgatives are indicated. When at the same time the apex and edges acquire a bright red colour, the exhibition of stimulants should be more guarded; the deposits may also disappear, and the tongue become uniformly red, being at the same time humid or dry; the cases in which these successive modifications are noticed, are generally unfavourable, and stimulants would increase their severity. At a later period, a black crust forms on the tongue, from extravasation of blood, and the epithelium breaks. It is a generally true remark that dryness and a dark coating of the surface of the tongue correspond with diminution of vital power, alteration of the blood, and depression of the nervous system, and that in such cases bloodletting should be carefully avoided.

The black colour and desiccation of the tongue may appear rapidly during any acute disease, in certain unfavourable conditions of the system. Thus, we observe it often in the phlegmasiæ of aged subjects in typhoid fever; the tongue gradually regains its natural colour and appearance during convalescence, but, until it has become quite healthy, some anxiety is justified. Such are the general rules; but, exceptionally, we find in fever that the tongue may remain natural throughout the disorder; this, however, is of sufficiently rare occurrence to render the accuracy of the diagnosis doubtful. The tongue is also found sometimes to have returned to its natural state, although the recovery does not progress—a circumstance which depends upon the continuance of the intestinal eruption. In eruptive fevers, the alterations of the appearance of the tongue chiefly depend upon complications. In scarlatina, however, it acquires often in the incipient stage a bright scarlet colour, which may persist during the eruption, and even outlive it. The epithelium peels off, and, the congestion of the fauces being propagated to the tongue, causes this special redness observed in scarlatina. During variola, dryness, swelling, and a black colour of the organ usually denote a serious complication; it may be occupied by pustules, or remain a long time dry—a sign of a very unfavourable nature, unless the nares are impervious to air. Intermittent pyrexiæ are not accompanied by any remarkable change of the tongue; during intense chills, however, the tongue may be cold and livid, as in algid fever; in the stage of heat it becomes red, and sometimes dry, but invariably recovers its natural appearance during the sudoral stage of each paroxysm.

Inflammatory congestion of the stomach is usually accompanied by redness of the tongue; but, if the inflammation has been so rapid in its progress as to disorganize the viscus in a short time, the tongue may remain perfectly natural. Thus, during the last summer, we met with a case in which, although six gangrenous eschars had formed in the stomach, the tongue had not departed in the least from its usual appearance. In chronic gastritis the tongue is more or less dry and red, and its papillæ congested. In that form of bilious synocha, called in France "embarras gastrique," the tongue is constantly covered with a uniform layer of white deposit, and is at the same time broad and soft: emetics and purgatives rapidly relieve this condition of the stomach. The perfectly natural aspect of the tongue is truly remarkable in cancer of the stomach; particularly during the first period of the disease, when cancer occupies the submucous cellular tissue. When the mucous membrane is invaded, the tongue sometimes becomes red and dry, and, after repeated hæmatemesis, pale and colourless. In gastralgia, the tongue preserves its natural characters; but, if the neurosis has been consequent upon chronic gastritis, the papillæ of the tongue may have acquired a degree of hypertrophy which may cause some hesitation in the diagnosis. In acute enteritis, colitis, dysentery, colica pictonum, the tongue is not modified, unless a complication be present. In cholera, during the blue period only, the tongue presents a special appearance, which we have already noticed.

In diseases of the organs of circulation the tongue remains natural, unless considerable difficulty exists to the return of venous blood to the heart. In phlebitis it presents the same appearance as in typhoid fever—the black sanguineous coating, which always points to great depression of vital powers, and to alteration of the blood.

In acute thoracic disorders, pneumonia for instance, no signs can be extracted from the appearance of the tongue. In the aged, pneumonia is usually accompanied by the formation of dark

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crusts of desiccated blood, which positively counter-indicate the use of the lancet. In consumption the tongue is natural: at the close of the disease, however, it often becomes the seat of a pultaceous, pseudo-membranous secretion, by which the fatal termination of the case is generally ushered in. In pulmonary emphysema, when respiration is very laborious, a beginning of asphyxia may be observed, when the tongue assumes a bluish tinge, and its temperature at the same time descends below its average standard.

In diseases of serous membranes the tongue undergoes no change; indeed, it is remarkble to see that organ preserve a natural appearance in spite of the obstinate vomiting and febrile excitement which accompany peritonitis. In icterus the tongue seldom becomes yellow, whilst the velum is, on the contrary, tinged with bile. Maladies of the urinary organs readily modify the aspect of the tongue: in vesical catarrh, for instance, a dry, fuliginous tongue is not unusual.

When the nervous centres are the seat of morbid change, the sensibility and motility of the tongue are often modified. Its sensibility is not much altered by affections of the brain, but may be more so by diseases of the nerves; thus exquisite pain, or anasthesia of the tongue, may result from an alteration of the fifth pair of nerves, and the organ may lose common or special sensation. Paralysis of motion of the tongue is the sign of many cerebral disorders. In general, the apex of the tongue, when caused by disease of one cerebral hemisphere, is deviated towards the paralyzed side. During the first days which follow apoplexy, it often happens that the tongue cannot be protruded from the mouth. In paralysis of the insane (an improper expression, that form of paralysis not being special to the demented), the first symptom of the disease is stuttering and difficulty of utterance; the diminution of muscular power in the limbs shows itself only later; and, in proportion with its progress, the intellect is observed also gradually to grow weaker. Paralysis of the tongue may be likewise produced without any physical change in the nervous centres—in cases of hysteria, for instance. It is always important to ascertain if paralysis of the face be the result of cerebral hemorrhage or the effect of cold upon the portio dura; when paralysis is idiopathic the tongue is never deviated; on the contrary, when distortion of the countenance is symptomatic of cerebral disease, the tongue is generally more or less deviated to one side.

D. M'Carthy, D.M.P.

Sudden Death from Entrance of Air into the Internal Jugular Vein.—The case is reported in "The New York Journal of Medicine," by Dr. Richard H. Cooledge, surgeon U.S. army. A man in a fit of temporary delirium inflicted a wound with a razor, commencing over the sterno-mastoid muscle, about three fingers' breadth below the lobe of the left ear, and extending to a corresponding point on the right side. In the course of the wound the left internal jugular vein was divided obliquely for about two-thirds of its circumference, and the carotid artery and pneumo-gastric nerve were exposed, but not injured. The razor then passed through the larynx into the pharynx, so that the finger could be passed from the external wound into the trachea and œsophagus; the remainder of the incision was superficial. On the visit of the surgeon, the patient was lying on his left side on the floor, with the head bent forwards, so as partially to close the wound. His back being towards the door, on the entrance of the surgeon the patient turned his head, thus opening the wound; a convulsive struggle ensued, and, before any assistance could be rendered, he had ceased to exist. The hemorrhage had not exceeded two pints. The autopsy was not as complete as desirable, in consequence of an anxiety manifested for a speedy removal of the body by some of the patient's friends. The anterior portion of the parieties of the chest being removed in the usual manner, the lungs were found to present a natural appearance, and there was no enphysema. On opening the pericardium, the right ventricle and pulmonary artery appeared more prominent than usual, and were elastic on pressure. The pericardium was now filled with water, and the right auricle punctured under water with a sharp-pointed bistoury; no air or blood escaped. The right ventricle was now punctured in the same manner, when a large quantity of air bubbled up through the water. There was no air in the left cavities of the heart. The quantity of air which escaped from the other side was not measured. On opening the heart the right auricle was found to contain a clot of blood; the right ventricle, pulmonary arteries, and left auricle and ventricle were entirely empty; the venæ cavæ were filled with blood, but the pulmonary veins were comparatively empty.

Traumatic Tetanus Successfully Treated with Quinine and Morphia.—Dr. D.E. Bishop, of Ithaca, New York, attended a blacksmith, who ran a rusty nail into the hollow of the foot, wounding the internal plantar collateral nerve of the great toe. The wound progressed very unfavourably. About three weeks after the accident tetanus appeared (opisthotonos), paroxysms occurring every three or four minutes, pain agonizing, perspiration very profuse, difficult deglutition, pulse 84, respiration hurried, and the jaw could only be separated about half an inch. The wound was incised, and the actual cautery applied. Five grains of calomel with one minim of castor oil, in two pills, were first given; then fifteen grains of sulphate of quinine, with three quarters of a grain of sulph. of morphia two hours afterwards; and a liniment to be rubbed along the whole course of the spine, composed of one ounce of sulphuric acid and two ounces of olive oil. The next morning it was found that the evacuations had been copious, the secretions being very much depraved. The quinine and morphia had the effect of lengthening the interval between the spasms, in the course of a few hours, to five minutes; pulse 75; pain much diminished; distress at the pit of the stomach quite as severe, which might have been aggravated by the quinine, as is sometimes the case. Having a desire for food, the patient was ordered strong beef-tea with brandy. The same treatment was continued for four days, with occasional variation as regarded time and dose, as circumstances required, the irritation of the spine being also kept up. On the sixth day, owing to a suspension of the quinine and morphia for ten hours, all the symptoms increased rapidly; they were again given in as large doses as at first, with the same happy effect, the wound healing kindly and rapidly; and on the eleventh day from the time he was first seen by his medical attendant the jaws were capable of being opened to their usual extent, at the will of the patient; the countenance was bright and cheerful, the pulse natural, and only four spasms during the night. The quinine and morphia, four grains and a quarter every six hours, were continued, with an occasional cathartic; port wine, beef-tea, and arrowroot, for nourishment; and on the twentieth day every symptom of the disease had left, the patient only complaining of weakness.

Encephaloid Tumour on the Lungs.—Dr. C. K. Thompson, of Wellsboro', Pennsylvania, relates this case in "The New York Journal." The patient was a labouring man, who, in 1842, hurt his side by lifting, which afterwards caused a swelling, and he was lame for four or five months; when he apparently got well. In the summer of 1845, in the harvest-field, he felt a sudden "giving way" in his side, followed by shortness of breath and faintness; and the patient always dated the commencement of his ill health from that time. He continued to labour on until some time in the winter of 1845-46, when he was seen by a medical man; and the symptoms found by him present were a peculiar wheezing, dry cough; an enlarged gland on the left side of the neck, just above the clavicle, about the size of a hen's egg, with a puffy swelling extending two or three inches round it. Two or three months afterwards he was examined again, and there was found dulness on percussion over a triangular portion of the left lung, the base of the triangle corresponding to the lower edge of the clavicle, and the apex being just below the left mamma; no vesicular murmur in the affected portion of the lung; bronchial murmur loud and sibilant; puffy swelling of integument covering left side; a shining or glossy appearance of the skin, which was purple in spots; the rest of a natural colour; purile respiration of the right lung. The next examination was the April following, when the extent of dulness was found increased; less bronchial murmur; veins in the course of the epigastric artery enlarged; cough very severe; no expectoration; several glands about the neck enlarged. In September there was found complete dulness over the whole extent of the left lung, with total want of murmur; the left side of the chest larger by measurement than the right, and no expansion in respiration; axillary veins and glands enlarged; appetite good; no cough; face bloated; pulse 110; breathing short; bowels regular. One week previously to death there was found complete dulness of the left side, and past the median line to the right; no murmur; no expansion of the left side in respiration; left mammary region projected forwards more than natural, and hard, presenting a sensation to the touch as if the ribs were firmly fixed in their places; axillary and cervical glands much enlarged, hard, and irregular; breathing difficult, especially in the recumbent position; cough with bloody expectoration; pulse 130. At the autopsy there were the following appearances:—The whole of the left lung, and a small portion of the right, were converted into a fibro-cartilaginous mass, and also the pericardium, which was firmly attached to the heart. In front, this fibrous texture extended nearly to the skin, *i. e.*, muscle entirely, and bone to a degree, were converted into the texture and consistence of the tumour. On slicing the tumour, in the centre was found a large mass of brain-like substance, with firm fibrous bands running through it; and scattered through the tumour in different places were spots of the medullary substance, and in one place was a portion melanotic, or nearly black in colour.

Deficiency of the Stylo-Hyoideus Muscle.—Dr. Moses Gunn, of Michigan, U.S., in dissecting a negress, apparently about sixteen years of age, noticed this anomaly. The integuments, and external layer of superficial fascia, were dissected up, and exposed a tolerably developed platisma hyoid. Removing this, and the sterno-cleido mastoid, with usual care, the dissection was commenced of the supra-hyoid region. The anterior belly of the digastric was dissected out to the point where its tendon passes into the loop of the fascia which connects it to the hyoid bone. In dissecting out its posterior belly, it was observed to be beautifully developed, though not much exceeding its usual size, and not to pierce muscular fibres, as it usually does those of the stylo-hyoid. The dissection was continued by laying open the loop of fascia which invests its tendon, and turning back the muscle to its origin. This exposed, not the fibres of the stylo-hyoid, but a layer of fascia, removing which, brought to view the stylo-glossus and stylo-pharyngeus in their natural position, and ordinarily developed. Adjacent parts were perfectly normal, but not the least traces of the stylo-hyoid could be found. The dissection was repeated on the opposite side, with additional care, and with the same result.

Characters of Urine in Pregnancy.—According to Dr. Regnauld, the urine contained in a glass vessel, and placed in a chamber the minimum temperature of which is 14° to 16° C., loses its transparency on the second or third day, and becomes more and more opaline. From this time it ceases to redden litmus paper, and restores the blue colour to reddened-paper. From the third to the fourth day, a slight white precipitate is deposited on the sides of the vessel, and then appears on the surface the first traces of a white pellicle, which, increasing in extent and thick-

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ness, generally covers the surface on the fifth day. There may be also seen, in the majority of such cases, crystals, which appear as brilliant points; the pellicle continues to increase up to the sixth or seventh day, but the advancing putridity now causes the phenomenon to lose its regularity. This pellicle, observed on the surface of urine from pregnant females, is considered only an exaggeration of the normal state. In such cases there is a hyper-secretion of an albuminous matter, which has escaped the oxygenation that ought to have converted it into urea. Hence arises a part of the pellicle, which is otherwise very complex in its composition. During the last days of pregnancy it cannot be discovered. This depends, it is thought, on the abnormal elimination from the kidney, of a variable proportion of lactine or sugar of milk, which, by being transformed into lactic acid, sensibly increases the acidity of the urine, and prevents the ammoniacal transformation of the urea. It is believed that these characteristics in the urine may be found in certain morbid conditions independently of pregnancy, and that too much importance has been attributed to them as a means of diagnosis. Yet, when the sensible signs of pregnancy are not very manifest, they ought not to be neglected, and may have a certain value in connection with the rational signs of that state.

Observations on Hysteria.—M. E. Marchand, of Sainte-Foy, has arrived at the following conclusions in reference to hysteria:—That aglobulia denotes a diminution of the blood globules, as hyperglobulia signifies an increase of the same, or plethora. Aglobulia is a very common morbid state. The blood globules, the medium proportion of which is 125 in 1000 parts of blood, may fall to as low a figure as 24. Aglobulia has for its discriminating mark a disturbance of the nervous system, and this is more decided the more complete the aglobulia is. The disorders arising may affect either the nervous system of the functions of relation or the nervous system of the vegetative functions. Under the first head fall convulsions, paralyses, hysteric lethargies, hysteric aphonia, hysteric asthma; disorders of organs of sense, as amaurosis and double vision, and tinnitus aurium. Under the second head come various chlorotic phenomena, nervous palpitations of the heart and great vessels, venous and arterial murmurs, failure of the complexion, certain disorders of the uterine function. In general, the diseases termed nervous depend on aglobulia, or at least always coincide with it. Aglobulia is more frequent in women than in men. The majority of the former have the affection slightly, which explains their nervous susceptibility, their exalted sensibility, and their many neuralgias. Women have a smaller proportion of blood globules than men, which may be ascribed to their periodical hemorrhage; and this seems to produce in them their peculiar nervous susceptibility. The nervous symptoms of the first months of pregnancy depend on the diminution of the blood globules. Chlorosis is the basis of pathology in the female constitution. Hysteria is the aglobulia of females from twenty-five to fifty-five years of age; chlorosis the aglobulia of young girls, and often of young men; hypochondriasis of grown men. A great number of chronic maladies—but especially syphilis, tubercle, cancer, and intermmittent fevers—gives rise to aglobulia, which is then symptomatic. Spare diet too long persevered in, too frequent venesection, produce it also, and consequently nervous excitability. Antispasmodics may calm excitement, but can never cure it. To do this, the blood globules must be brought back to their normal state by animal diet, wine, iron, bitters, exercise in the open air, sea-bathing, &c. In syphilis it is desirable to combine with these certain other remedies. An increase in the proportion of blood globules (140, 150, 170 per millimètre), or hyperglobulia, impairs the nervous sensibility, and leads to apathy. Those affected with hyperglobulia are affected with gout, gravel, cerebral hemorrhages. The best means of curing hyperglobulia are venesection, spare diet, vegetable nourishment, alkaline water, &c. The functional derangements of the vascular system, and those of the nervous system, arise in an inverse ratio.

Abnormal Distribution of the Brachial Artery.—Mr. Charles Anderton records a case in "The Provincial Journal," where, on amputating the arm of a girl, fifteen years of age, of scrofulous constitution, in which there was an abnormal distribution of the brachial artery, the only vessel requiring a ligature was a small (not larger than a terminal) branch of the superior profunda, on the *external* side of the bone. On examination of the face of the stump, there was a forcible pulsation in the normal situation of the brachial, which, on tracing, appeared to take a circumflex course anteriorly. Under these circumstances the edges of the stump were not brought together immediately, from fear of secondary hemorrhage. The torniquet was cautiously loosened, until all restraint on the vessels was removed, and the stump left exposed for two hours, but without the least appearance of bleeding, although the whole of the vessels over the face of the stump appeared all in forcible activity. Cicatrization was eventually accomplished without the least unfavourable symptom or appearance of hemorrhage.

Disorders of the Nervous System during Pregnancy and Parturition.—Dr. Lever says, in Guy's Hospital Reports—1. That pregnancy is occasionally associated with chorea, or convulsive movements, with paralysis of various parts of the body, of the extremities, and of the nerves of special sense; and with mania. 2. That the varying symptoms of such complications may be produced at any period of pregnancy; but when produced, although modified by treatment, are rarely removed during the existence of gravidity. 3. That the patients in whom these complications exist, are women of a highly-nervous temperament, of great irritability, or whose constitutional powers have been reduced by some long-continued but serious cause of exhaustion. 4. That in the treatment of such cases heroic measures are not to be employed; that the curative means consists in improving the secretions, keeping the bowels free, administering those medicines and employing that diet which will increase the tone and energy of the nervous system. 5. That although, in most instances, the symptoms will continue so long as pregnancy exists, yet, in the majority of cases, we are not justified in inducing a premature evacuation of the uterine contents.

Corroding Ulcer of the Uterus.—Mr. Boult exhibited to the Bath Pathological Society a specimen of disease which occurred in a woman aged fifty-two. She had enjoyed generally good health during the greater part of her life, had menstruated regularly until six months of her death, at which time the periodical discharge was supplanted by a constant sanguineous drain, with occasional attacks of profuse hemorrhage, which brought her into a very low condition. She suffered severe pains in the back, and occasionally in the hypogastrium. On examination after death, the uterus was found somewhat increased in size, adherent superiorly to the sigmoid flexure of the colon; anteriorly to the posterior aspect of the bladder; posteriorly to the rectum, with which there was a communication formed, though it did not appear that this communication had been discovered during life; there were considerable traces of inflammation of the peritoneum adjacent to these parts. On slitting open the colon and rectum the mucous membrane was seen in a peculiar state of partial erosion, which gave it a somewhat reticulated appearance, and, whilst the mucous membrane was thus engaged, the peritoneum did not seem to participate, inasmuch as this membrane could be elevated in many places, and the disease seen distinctly beneath it, the above-mentioned inflammation being apparently of a diffusive character, unconnected with the original disease. In the uterus the ulceration appeared to have commenced internally in the neighbourhood of the cervix, and to have gradually eaten its way posteriorly into the rectum; the usual appearance of the os tincæ was gone, the lips being destroyed, and the upper part of the vagina, contiguous, implicated; the upper portion of the uterus had escaped ulceration, but when cut into the fundus was found hard, and resembled in appearance an unripe pear. The disease had tended to a fatal termination by anæmia, and by peritoneal inflammation, the former being the immediate cause of death. It was remarked, that this case resembled much more the character of lupus, than that of true cancerous disease.

On the Presence of Fibrine in the Urine.—Dr. Heinrich, of Bonn, describes four conditions in which fibrine occurs in the urine:—1. The urine coagulates spontaneously, separating in a serous and an elastic solid portion. 2. Worms, or vermicelli-like coagula, are evacuated along with the urine. These coagula are considered as coming from the kidney, and moulded during their passage through the ureters; they cannot come from the bladder, because exudation within it shows no disposition to put on such forms, probably from the well-known causes that induce exudation in pleuritis, arachnitis, &c., to assume flattened forms corresponding to the exuding surface. 3. It is frequently found in a loose aggregate of very fine granules or molecules; this is considered a sign of qualitative disease of the fibrine. 4. The microscopic moulds of the Bellinian tubes, occurring in the urine during irritation of the kidneys, are fibrinous, though tubes containing albumen, fat, and uric acid, are likewise found in the urine in similar diseased conditions.

True Hydatid of the Heart.—Mr. Nathaniel Ward exhibited to the London Pathological Society a specimen of this disease. The patient, aged twenty-two, a barman, who had been in the habit of drinking to an immoderate extent for several years, was admitted into the London Hospital, having three days previously received a severe blow on the abdomen, resulting in peritonitis, which rapidly subsided under the usual treatment. It being found on examination that the heart was excessively turbulent and irregular in action, the man was placed under the care of the physician, and died four days afterwards from a very acute attack of double pleurisy. The pericardium contained two ounces of fluid; the heart was larger than natural, with mitral and aortic disease; and on the posterior and upper part of the left ventricle, beneath the superficial muscular fibres, was a hydatid cyst of the size of a French walnut, containing numerous other cysts, varying from the size of a nut to a mustard-seed. The echinococcus was observed studding the inner aspect of the cysts. Neither the liver (which was in a state of cirrhosis), kidneys, or spleen, presented a similar affection.

REVIEWS.

Observations on some of the Parts of Surgical Practice. To which is prefixed an Inquiry into the Claims that Surgery may be supposed to have for being classed as a Science. By JOHN P. VINCENT, late Senior Surgeon to Bartholomew's Hospital. Longman and Co. 1847.

[SECOND NOTICE.]

In proceeding to the practical matter of Mr. Vincent's observations, we may remark at once, that, in almost every part of the work, there is a great deal that is good and true, in close juxtaposition with something which we hold to be at least doubtful; and thus an incautious reader may possibly, we think, with much wheat, gather a few tares. In devoting the remaining space to some of these passages, the task is somewhat ungracious, but we do it in no spirit that would desire to point to the blots only of a book that, on the whole, we can conscientiously recommend for perusal, but rather that we may, so far as in us lies, increase its utility.

The author delivers his experience, in the first place, on accidents to the bones and their articulations, and appropriately introduces the subject by some remarks on "muscular associa-

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tions"; the bearing that these have on the replacing the injured parts, and on keeping them in apposition. The chief practical conclusions arrived at on this subject are, first, that, *cæteris paribus*, side positions are generally to be preferred, because there is less chance of any motion arising out of the laws of muscular association; and, secondly, that the most quiet position of a given muscle is not, as is usually supposed, the "greatest approximation of its attachments," but by "attending to their position, when they are required to throw out their strongest exertions." There is good deal of suggestive matter in this chapter, and upon a very interesting subject, viz., the best means, so far as position is concerned, in tranquillizing muscles concerned in accidents; but, although we should admit that, in a case of broken arm, the tranquillity of the deltoid muscle would be best secured by allowing the limb to hang at the side of the body, yet we think that gravitation is here the agent of apposition—a constantly-acting power, in opposition to a voluntary muscle temporarily disturbed by the accident. We should also offer a very different explanation of the urine passing through the urethra, in certain cases of fistula in perineo, and after lithotomy, before the external wound was healed, than that which supposes any power in the system "setting aside the laws of matter;" or before we concluded that the laws of "hydraulics had little influence on the circulation."

Our author may, we think, be assured that in the diseases of the urinary organs to which he alludes, although the circumstances will vary in different cases, yet that the fluid always passes, in strict conformity with the known laws of hydraulics, viz., where it meets with least resistance; and, in regard to the hydraulics of the circulation, we hold that no part of certain influential physiological works is more erroneous than that which overlooks, or nearly, the numerous applications of the laws of hydraulics in the distribution of the fluids of the body: with which laws the phenomena of the circulation are not only perfectly consistent, but which they most beautifully illustrate. Every fact in the circulation—whether it be the distribution of the vessels, the acceleration or retardation of the current, the greater or less elasticity of the arteries, the modified structure of the veins, or the phenomena of venous circulation; all are beautifully clear, when viewed on hydraulic principles, but wholly unintelligible on any other. Let any one consider some of the miserable attempts which have been made to explain the venous circulation, independently of the laws of hydraulics, and he will immediately perceive the utter worthlessness of a physiology *merely* anatomical.

Our author's remarks on periostitis are interesting and judicious. We have long counselled and practised the early division of the membrane, and we extend it to all cases where we are led to believe that the disease is essentially seated in the periosteum. We are not quite sure whether we do or do not recognise that case in which Mr. Vincent compares the sensation afforded by the division of membrane to parchment, people's sensations differ so much in these things; but of this we feel certain (albeit that our admiration of local surgery is somewhat measured), that very few persons labouring under periostitis, whether sequent on accident, or the result of disease, are in sufficiently good condition to dispense with that assistance which the division of the periosteum affords, without at least very unnecessarily prolonging the case, and adding to their suffering. Besides which, we believe that, in many cases, the division of the periosteum may and does cut short processes which occasionally terminate in Necrosis.

Our space obliges us to leave almost unnoticed Mr. Vincent's remarks on carbuncle and similar affections. His practical directions are, we think, sound; but there is something to us very misleading in saying that carbuncle or furuncle either "seems to be the result of some affection of which the skin is particularly the subject;" although, after all, in one sense it is true enough; but it would be much clearer if (as Mr. Vincent's own remarks fully demonstrate) it were stated that they were generally the result of the disorders of some one or more of the internal organs, and that they were placed on the skin, which was so far subject to them, in conformity with the law which determines the effects of internal disorder so frequently to the surface of the body.

The *rationale* of the incision in carbuncle, as stated by Mr. Vincent, appears to us scarcely intelligible: if intelligible, not sound. We must, however, restrict our remarks to the caution here implied, and proceed to more important matters.

Our author treats rather shortly of fracture of the neck of the femur. He would prefer the position on the side, after Mr. Abernethy, where the advanced age of the patient, or other circumstances, did not preclude a reasonable hope of maintaining it. We *infer* that our author entertains the opinion now generally held, that fracture of the neck within the capsule is not necessarily a bar to ossific union. He does not say so expressly; but observes that fractures of the "actual" neck he thinks he has seen do better on the side.

The reader will find a good deal on the subject of scrofula which will well repay perusal; and of much of the more important points our own experience has afforded us abundant corroboration. The book, however, on some of the more serious scrofulous affections is not so satisfactory as we trust Mr. Vincent could have made it.

Unquestionably the practical steps we take in various scrofulous affections are to be referred to the same general principles; still, in many respects, cases vary in a manner extremely puzzling to young practitioners, especially in regard to certain local proceedings, unless the principles are very definitely enunciated. We will endeavour to show what we mean, by taking the case of lumbar abscess; and we select this from its great importance, and from our experience having led us to somewhat different conclusions from those arrived at by our author. For example, a very considerable and anxious experience of such cases entirely forbids us from agreeing (however unsuccessful that or any other plan must necessarily be in some cases), that the advantages held out by Mr. Abernethy's plan "have proved fallacious;" on the contrary, there is nothing that to us has proved more satisfactory or successful; and we cannot but think that, when it has proved otherwise, it has in many cases been held responsible for consequences which were necessarily the result of the extent of the disease, whilst in others it has not been conducted with a clear or *comprehensive* perception of the principles on which it is based. This we think certain, not only from what we have ourselves observed, but also from the *manner* in which those who have lauded Mr. Abernethy's plan have recommended its adoption.

Sir A. Cooper, when speaking of the constitutional disturbance too common in the ordinary opening of lumbar abscesses, says that Mr. Abernethy's mode is the best "invented by any surgeon" for the prevention of these occurrences; and he proceeds to say, "therefore, when the skin becomes red, you should open them," &c.; whereas it would have been much more to the purpose, had he said, if you wait until the skin becomes red, you will risk your chief object, which is "healing your puncture." To sketch what we believe to be the correct view of the surgery of these cases, we would remark, that the irritation in the loins, whether involving disease of the vertebræ or not, is the *proximate* cause of the abscess, no doubt; but the lumbar mischief itself is an *effect* of imperfection in some of the nutritive processes (we use the phrase in its extended sense). The *defect* may be in one or more of the organs through which these processes are executed. Now, the real treatment consists in discovering and ministering to the particular organs most at fault, combining, indeed, such local management as shall not, mechanically or otherwise, impede the locally curative processes; in other words, which shall relieve the disturbed structures from their ordinary functions, until their disturbance shall have ceased, or their injury have been repaired. The abscess is merely an attempt to relieve the irritation, or to determine it to the surface—itself an effect, but which it is very important to conduct to a healthy issue, or to render unnecessary. In the former case our object is to procure its discharge without the occurrence of any constitutional disturbance; in the latter we induce its absorption. The health, therefore, should be *thoroughly* examined, and those very useful general attentions suggested by Mr. Abernethy enforced by that more sweeping and analytical examination of, and ministering to, the various functions which modern surgery has insisted on, although it may not yet have characterized "hospital practice." If the success in adjusting what is wrong in the various functions be very nearly complete, the matter will become absorbed. We have ourselves procured this even with angular curvature of the spine; but, as the constitutions of patients with large chronic abscesses are seldom energetic, and as the attainment of even *their* maximum of power is extremely difficult under the restrictions as to air and exercise which the local circumstances usually impose, so we generally find that the abscess *slowly* approaches the surface, and we open it before any such thinning of the integuments shall have taken place as may risk or prevent the healing of the puncture. A third state of things, however, sometimes occurs, much more puzzling, and on no account more so than from the differences of opinion amongst eminent surgeons, as to whether it should be opened or not; and, again, the exact time when it should be done. We have witnessed all this; and it is a position not only embarrassing to the surgeon, but one which, without some decision of character on his part, may prove very damaging to the case. The condition to which we refer is the following:—The abscess shall have gone on increasing, sometimes suggesting an early approach to the surface, at others exhibiting such a diminution as to justify the hope that it will be absorbed. At length, however, it appears to be pretty stationary, and now decision is required: for on the one hand the symptoms do not appear to press for interference, so as to induce a surgeon to proceed in the face of conflicting opinions; on the other, if he do not proceed, we fear he will in many cases withhold that assistance which will practically prove a necessary economy of power. For, although we would not wish him to do so in the absence of *any* symptoms suggesting it, yet he must not wait for any of a very decided character. If he find that the pulse, which had been regular, begins to "snap" a little, even though its frequency be not augmented; or if he finds the appetite, which had been satisfied with a simple diet, begins to fail, or to require the excitement of dainty food, or the tongue at all less clean, or the bowels becoming irregular, especially if there be any easily excited tendency to relaxation; though the patient do not complain, though the rest remain perfect, he may rely on it these are declarations that a contest is going on; let him therefore open the abscess without delay, and strictly in Abernethy's manner. Although we have selected lumbar abscesses for our remarks, yet we apply them to large chronic abscesses, wherever they occur. The puncture should not be made in a dependent position, because, whilst it can easily be rendered so, by position, during the evacuation of the abscess, it is desirable to avoid disturbance of it afterwards, which, in cases where the abscess partially fills again rapidly, might readily happen from the matter gravitating against it.

We have always employed the common abscess

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lancet, as it seems to us well calculated to ensure just that relation of size and position between the opening in the sac and in the integuments which we desire. Our author, we observe, prefers the trocar, of which in such cases we have had no experience. We regard all possible exclusion of air from the sac as important, which we find very practicable with the abscess lancet; nor have we ever met with those inconveniences in its use, from the subsequent interposition of fat, lymph, or cellular tissue between the lips of the wound, which Mr. Vincent mentions. The *rationale* of issues, as delivered by our author, requires to be received with great caution.

Our author has some remarks on hemorrhage, and on the presence of coagula in exciting it, which will be received with some difference of opinion. No doubt there will be many, too, who would rather employ other measures than place quite as much confidence in turpentine as our author. For ourselves, we have often seen the confinement of coagula (the result of a little weeping from a considerable surface) the cause, as we believe, of a real secondary hemorrhage; but the reader will see that Mr. Vincent's idea of the influence of coagula goes far beyond cases of this description. We select one more subject for remark on account of its great importance.

Mr. Vincent retains the old doctrine of the relations of mercury to syphilis, and regards the notion, that many cases of what are called secondary symptoms are produced by mercury, as erroneous. Were it not that affirmatives on such cases are worth any number of negatives, we should regard such an opinion from an experienced surgeon as very mischievous; but we think the facts on which we would maintain that "mercury will produce diseases of bone, not distinguishable from those called syphilitic," are so clear that nothing can possibly refute them. As for the diagnoses of peculiarity of fetor, the *slowness* and other so-called peculiarity of *syphilitic* necrosis, we can assure our author that we have over and over again seen cases presenting all these features where there were no grounds for supposing that syphilis had ever existed; *but where plenty of mercury had been* administered for *inflammatory affections*. The purest case we ever met with was one in which the mercury was first administered for an affection of the membranes of the brain, immediately consequent on a violent mental emotion, occasioned by a sudden family affliction. Long before we had seen cases of this decisive character, we had little doubt on the subject; still the great difficulty which laid in the way of any positive conclusion was that, in almost every case of the suspected mercurial affection, inquiry elicited, that at some period or other the mineral has been exhibited for supposed syphilis. Advancing years, however, though they were characterized by a general repression of the previously free use of mercury in *syphilis*, were no less distinguished by a remarkable *extension* of the employment of this mineral in many other, and especially inflammatory, affections; and thus, with an ample field for observation, we very soon found cases of a most unequivocal character. Further investigation unfolded also the still more interesting fact, that neither mercury nor syphilis *could be proved* to act in virtue of any special property, which might not be, under peculiar circumstances, exerted by things having no known affinity to either. As we do not know that any of these facts may have reached the reader, we will state that we have seen what would be called a true mercurial salivation from aloes, from scammony, and from a peculiar condition of health, engendered we know not how, but certainly exclusive of any *mercurial* agency. In short, the facts of our experience have strongly suggested, that almost any form of matter which the system usually recognises as a poison to be ejected by one or other of the excreting organs, might, if confined in the system by narcotic or other combinations, give rise to what may be, for shortness, called mercurial phenomena. One corollary we will add to the foregoing: that it has appeared to us that influences of any kind which have the power of simulating mercury, have seemed, like it, to have a very decided action on the portal system. We are therefore surprised at the confidence which Mr. Vincent seems to repose in the fetor and the slowness of syphilitic necrosis as points of diagnosis: the former having occurred so frequently to us in other cases; and the latter seeming to be constant where *from any cause* we deal with deficient power. Neither can we at all refer the ill success of mercury in certain cases of *alleged* secondary symptoms to the remedy not having "been administered with sufficient perseverance. Many years ago, before we understood these matters in the light we do now, certainly the very worst cases were those in which we had every reason to believe that mercury had been most liberally employed. Nor should we exceed the truth if we add that it was this class of cases that made us first distrust the dogma which rested mainly on the authority of Hunter, and which Mr. Vincent's views would perpetuate—a dogma which we have always viewed as the example which Mr. Hunter afforded of the mischief of for one moment laying aside that inductive spirit which so much distinguished his more successful investigations. There is no single point on which we have touched, in regard to mercury and syphilis, that we could not relate cases in evidence; but it would require a volume, and not a very small one either, to put forth our facts on this subject; we have, however, said enough to put the young reader on his guard, and to induce him to observe them for himself.

Had our space permitted, we should have had pleasure in touching on many other points wherein our experience and opinions coincide with those of our author. We the less regret this, as the book will probably be perused by most practical surgeons. We hope that the time will arrive when the summary of the opinions of so experienced a surgeon as our author, however acceptable in their present form, will be a book of higher character—when it will be nothing less than a series of interesting facts closely tied to the principles which they exemplify, as well as to the natural laws of structure and function, in obedience to which they occur. We fear, however, that there is too much truth in what Mr. Vincent has said of surgical science, to justify us in expecting this from any records of experience merely, or indeed from any other source, for some time to come. So long as surgery is anything but a science, books like Mr. Vincent's must be very acceptable. A compilation it may be, but it is compiled from the bedsides of patients. Such books, amidst the responsible and not unfrequently puzzling realities of practice—the multiform phases under which diseases essentially the same are presented to them—enable surgeons to compare their respective experiences; and thus, if they cannot educe a law to direct, furnish them in most cases with a precedent to suggest, the most eligible mode of dealing with difficulty.

But we think we see around us elements of better things. What we require, in the present state of science in this country, is a man of sufficient "perceptivity," or, to use Mr. Vincent's word, "perceptuousness," to see the evils of the present state of things, and the vast good that would necessarily result from the conversion of medicine and surgery into a science; one, too, who would have sufficient independence of mind to think for himself, and who was furnished with an arena whence he could boldly enunciate what he did think; and further, he should have sufficient independence of position to raise him above those worldly wants which must ever impede, though they may not prevent, the labours of men of science. This last the great hospitals can and should provide. Moreover, pioneers in science must not only have a degree of that enthusiasm which it is the fashion to ridicule, but must regard it as a feeling without which very little of advance has hitherto been attained. It is in some sort necessary to that missionary spirit which would break through the money-getting routine of a cold conventionalism, which, though it receive a new medicine, a new operation, or even a new instrument with respect and attention, would regard any serious attempt to reduce surgery to a science as too theoretical for "practical men," or too troublesome for examination. If to such appliances were added that lamp which Bacon has left us, the splendid opportunities afforded by public institutions would soon furnish the foundation of a real science. Medicine and surgery would soon cease to be things of conjecture and opinion: *medical* science would have a lustre thrown around its progress of which few others can boast. Instead of every advance having been purchased at the expense of the poverty, the ill health, the broken spirit, the ruined fortune, or even the persecution of the individual; that of medicine and surgery would be distinguished only by a progressive diminution of human calamities. We believe that a more elevated system of hospital policy would not only promote these objects, but that no persons would be ultimately more benefited than those very men who, as it appears to us, now misled by the time-worn fallacy of present fruition (the devil's own bait), uphold a system which can degrade no one so certainly as themselves. The requisitions of science are not necessarily opposed to common worldly prudence, nor are we so Quixotic as to expect that men will entirely discard selfishness or any other principle inherent in human nature. We desire only that they should see their *true* interests; but, if they *will* have it that prudence is "conciliare sibi animos hominum et ad usus suos adjungere," let them recollect that an equally astute observer has said—

> "Quanto quisque sibi plura negaverit
> A dîis plura feret."

THE MEDICAL TIMES.

SATURDAY, DECEMBER 4, 1847.

THE POOR-LAW MOVEMENT.

We have all sorts of facts to show that our work is already not without some fruits.

In Southwark Union an increase of salary has been given to the different medical officers.

The Holborn Union, so vigorously called to account by Mr. White at the Convention, has handsomely atoned for its short comings. The guardians have raised the salary from £115 to £150 per annum. Such is the reward of Mr. White's honesty in a good cause! Such the result of a wise combination by men having a good cause really at heart!

The changes in Southwark and the Holborn district are but types of what is elsewhere going on with more or less success. The public voice has been secured in our favour: the press in all parts of the country is coming forward as its echo: and guardians of all phases of character are influenced by the movement.

Not all alike, however. In the Chesterfield Union there have been guardians who have heart enough—or rather, not enough—to grind down the sick poor and their medical attendant with the same iron hand. But, fortunately, we have so placed the strength of our cause in public view, that the opponent must be ingenious indeed who will avow himself against us and not be ridiculous. Fancy the guardian—a gentleman of Ashover—who could gravely submit for adoption a document of this kind:—

"To the Poor-law Commissioners, Somerset-house, London.

"The board of guardians of the Chesterfield Union have, with surprise and indignation, observed in the public press that medical officers of

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unions have resolved to communicate with Government, with yourselves, and with the College of Physicians and Surgeons, on the subject of what they call 'the very inadequate remuneration of boards of guardians for their services.' The feelings of the board are the more excited when it is called to mind that little more than two-thirds of the money raised by assessment for the relief of the poor ever reaches that class, the other third being swallowed up in salaries, repayment of workhouse loans and interest, and in other contingencies, and that almost £30,000 are expended annually in England and Wales for vaccination fees only.

"This board is therefore of opinion that such a proceeding is unnecessary and uncalled for; and, in order to put this opinion to the test, it is recommended that in future duly authorized medical practitioners be required to compete for their appointments, in like manner as other supplies and requirements of the board are competed for, being fully convinced that public competition in this, as in all cases of like character, is the most effectual means of ensuring to the public, to boards, and to the paupers under their care, the most active and effective medical practitioners."

Could "indignation" and "surprise" be better employed? The man "*indignant*" at the virtuous efforts of gentlemen in their own behalf and that of the poor, must be "content" with such a state of things as makes us tremble for the wretches really at the mercy of his guardianship.

DR. HODGKIN AND MEDICAL REFORM.

Dr. Hodgkin (a) has just placed before the public some additional remarks on a subject which an able paper, published some time since in this journal, shows he has very attentively considered—viz., Medical Reform. The amiable and enlightened author, after a general review of the present classification of medical men, gives the College of Physicians credit for some of their recent improvements in the following terms:—

"It is not my object to give a narrative of these feuds, the more remarkable of which took place before our time, and, as matter of history, are much more amusing than instructive. I have never understood that they produced any important accessions to our scientific knowledge; although I have heard that the learned fellows assembled in Warwick-lane once proved the sedative effects of cold water by copious affusions from a fire-engine on the persons of the too-ardently petitioning licentiates, and thus anticipated the discoveries and triumphs of our modern hydropathists. The remonstrances of the licentiates, pressed in a quiet, but steady and persevering manner, together with the growing influence of liberal opinions on public affairs in general, contributed, however, to the introduction of reforms in this direction within the penetralia of the College of Physicians; which reforms were, I believe, proposed and successfully advocated by Dr. Kidd, Dr. Billing, Dr. Elliotson, Dr. Clendinning, and some other fellows, distinguished alike by the extent of their acquirements and the liberality of their views. A considerable number of those who were neither graduates of Oxford, nor of Cambridge, nor of Trinity College, Dublin, were admitted to the full title of fellows; and a still more important step was taken in effecting a change in the laws of the College, by which the distinctions of licentiates, inceptor-candidates, and candidates were abolished, so that all the fellows are now selected from one comprehensive class of licentiates; and the impartial and well-selected creations of fellows which have since taken place evince that the change has been not merely apparent but real."

(a) Medical Reform; an address read to the Harveian Society, at the opening of its seventeenth session, by Thomas Hodgkin, M.D., one of its annual presidents, 1847.

The compliments to the individuals and to their success are neither ungraceful nor undeserved. The complaint registered in the subjoined passage is one which does not win our assent so fully:—

"The College, which is not a university, which has no power to confer degrees, and which, by its laws and long-established custom, required that those who presented themselves for examination in order to obtain the licence should, amongst other qualifications, be furnished with the degree of doctor of medicine legitimately obtained in a recognised university, has departed from this practice, and admitted to the licentiate, and, by courtesy, to the distinction of doctor, those who have no academic degree, and whose education may have been received at one of the merely medical schools. Far be it from me to insinuate that, in the exercise of this innovation, the licence of the College has been granted to any unworthy person. The grievance is, that an injurious principle is adopted. Those who thus receive the licence may be qualified to receive the doctor's degree with the greatest *éclat*; but the examination of the College is not a test of this. Such creation of licentiates is not merely to some extent an act of injustice to those who received the licence prior to this innovation, but is not fair to the regularly constituted universities, and, perhaps, is not strictly honest to the public. That the fellows of the College would not be insensible to such an innovation, were it to affect themselves, may be inferred from their late memorial to the Government."

Although we know the danger of differing with so careful a thinker as Dr. Hodgkin, we yet do not yield to the force of this reasoning. Under the present system of public education, we are not averse to the rigid exaction of a university degree from the applicants for a licence to the College of Physicians. In some universities the courses are not good, and the test for matriculation in others are of too exclusive a character. Besides, it has been too much a complaint that physicians have been more remarkable for their classical erudition than skill by the bedside; and we see many advantages in adding to their body men who, if they have less scholastic attainments, have those far higher qualities in the physician—those, indeed, which made the greatness of a Hippocrates and a Sydenham—large, expansive powers of observation, and a comprehensive judgment.

The following are his observations on the present movement of the general practitioners:—

"The great body of general practitioners, acting through the Council of the National Institute, has two principal objects in view:—First, protection against indignities to which it is exposed from other professionnl bodies, or from the public, as likewise, against the encroachments of irregular practice on the part of the druggists and empirics; and, secondly, the elevation of the general character of the body, and the establishment of a principle of self-government; for which purposes the general practitioners desire to take into their own hands the education, the examination, and the licensing of the future members of their body; and to place their government, legislative and administrative, on a representative and elective principle.

"Whilst I cordially wish them success, as respects the promotion of science, and the increase of harmonious co-operation among the members of the medical profession of all classes, I entertain very serious doubts respecting the means by which these ends are sought to be attained. Will the circumstance of membership in the new body of general practitioners have any effect in preventing the unequal distribution of honours and favours on the part of the College of Surgeons? Those who possess these distinctions will naturally magnify their importance, whilst the equal value and credit of the general practitioner's diploma will be similarly applauded by those who have obtained it. The desire of connection with the College of Surgeons, and the advantages accruing from it, will cease to exist for a large proportion of the profession; yet conformity to established usage, or the by-laws of institutions to which they wish to become attached, may still compel many to seek it. The danger of schism will, therefore, be rather increased than diminished, since the new body will be more obviously a rival to the College than the old Company of Apothecaries has been. I do not think that there is at present any danger of a collision with the College of Physicians, owing to the fact, which I by no means intend to state offensively, that the functions of that body have virtually become a sinecure; being, with the exception of acts affecting the fellows themselves, almost confined to the exaction of fees. Were it, however, to become more active, by doing which I am far from thinking that it would increase either the prosperity or the comforts connected with it, it is very probable that it might come into collision with a body such as the general practitioners propose to constitute.

"With respect to protection against quacks and irregular practitioners, I do not see how any new body can effect more than the Apothecaries' Company and the College of Physicians are by law qualified to undertake. The difficulty of performance arises not so much from any defect in the law, as from the predilection for quackery which pervades a large portion of the public of all classes. Hence, though the unintentional homicide in a case of extreme malpractice may be vindictively prosecuted and punished, there is no such sympathy with the medical profession, as would render their protection against the numerous instances of quackery at all popular. The effectual suppression of quackery must, therefore, be brought about by the public mind being enlightened on the subject; and, when this is accomplished, the patient will be as unwilling to trust his life in the hands of an ignorant practitioner, as the sportsman would be to discharge an untried gun-barrel.

"The proposal to establish a distinct medical school, and a distinct system of examination for general practitioners, appears to be of very questionable utility. The several branches of education are so essentially the same for all classes of the profession, that there does not seem to be any perceptible advantage in such a plan, to counterbalance the probable inconvenience which might arise from there being separate schools of anatomy, physiology, and chemistry, for the general practitioner, the surgeon, and the physician; and the institution of a distinct examining board would confirm the evil, by carrying the peculiarities of teachers into the class-books and preparations for examination."

CHLOROFORM.

THE NEW ANÆSTHETIC AGENT.

Scarcely have twelve months elapsed since the world was first astonished by the announcement that the inhalation of ether vapour was capable of rendering a patient insensible to pain during the performance of a surgical operation. Such an extraordinary discovery was received by many with no small degree of credulity; but, experiment after experiment having been tried with success, the rage for operating became so great that numbers of surgeons, whose instruments were rusting in their scabbards for want of use, boldly drew them forth, resolving now to let no opportunity pass without testing their own skill as operators, and the powers of ether as an anæsthetic agent. Legs and arms, toes and teeth, succumbed to the surgeon's instruments, and the *fortunate* patients experienced no terrors in sight of the "cold steel," when they had near them a *dea bona* in the shape of an inhaler. The inspirations *from* the goddess scared away every pain, and the patients often felt after an

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operation a surprise as great and as agreeable as that which Abon Assan experienced when he awoke in the palace and on the couch of the illustrious Caliph Haroun Al-Rasched. The glory of ether has now, however, departed, and all the complicated apparatus connected with its administration will be consigned to an ignominous oblivion, for chloroform has superseded the one, and the simple pocket-handkerchief the other.

This sudden revolution has been brought about by Dr. Simpson, of Edinburgh, who, in experimenting upon the inhalation of different volatile chemical liquids, discovered that the perchloride of formyle possessed superior qualities to the American anæsthetic for temporarily annulling sensation. In most of the experiments which have been since tried with this new agent, it has been found that Dr. Simpson's statements in reference to its superior virtues are founded in truth; and we know of no case in which it has failed to do all that ether has accomplished, without the trouble and expense which attend its exhibition. In five instances we have administered it ourselves with the most complete success; the only apparatus used being a pocket-handkerchief, and the quantity of chloroform employed in each case under a drachm. In two cases the full effect of the agent was produced in one minute; in the other three, under two minutes and a half. The pulse of each was quickened at the first inspiration, but afterwards fell to its natural condition. In one patient there were spasmodic twitchings of the muscles of the right arm for five minutes after the return insensibility, but these gradually subsided; and none of the patients complained of any unpleasant feelings upon the return of consciousness. The duration of the state of insensibility was about two minutes.

Chloroform produces, after two or three full inspirations, a feeling of warmth and excitation in the chest, which then extends throughout the body; this is quickly followed by noises in the ears and a sensation of numbness in the whole system, with a speedy loss of sensation, motion, and consciousness. Dr. Simpson, in speaking of the effects, says, "During the full anæsthetic sleep sometimes no mental action goes on or, at least, is remembered; in many others the mind is active as in dreams. The respiration is usually at first soporose; the pupil sometimes natural, in others slightly contracted, in others dilated; the pulse is usually quickened ten or twenty beats at first, but afterwards falls to its normal state, and, if the vapour is exhibited very long in very powerful doses, it comes down more and more below the natural standard; muscles of voluntary motion in general relaxed; more rarely cataleptic; still more rarely clonically contracted, as happens also occasionally with ether. In small doses, given slowly, its effects are exhilaratory, and exactly like those generally following the inhalation of nitrous oxide gas."

It is necessary, however, that the agent employed be chloroform, if the administrator is to meet with no disappointment. Already a variety of articles has appeared in the market, called by this name, but possessing very few of its good qualities; it is well, therefore, that the profession should be acquainted with the chemical properties and external characteristics of a fluid which they may hereafter wish to use. There are two other chemical compounds with which the new anæsthetic agent may be confounded: these are the hydrochlorate of chloride of acetyle (oil of olefiant gas, $C_4 H_3 Cl + H Cl$); and the chloride of ethyle (hydrochloric ether) $C_4 H_5 Cl$. The former is a colourless, mobile liquid of an agreeable ethereal odour and sweet taste, boiling at 180°, and, when ignited, burns with a luminous flame edged with green. It communicates to water its smell without being perceptibly dissolved, and it is miscible in all proportions with alcohol and ether. The specific gravity of its vapour is 3·4484. The latter (chloride of ethyle) is a colourless liquid, having a penetrating aromatic smell, somewhat resembling that of garlic. It has the sp. g. 0·874 at 40°, and boils at 51°. Chloride of formyle, or chloroform, however, differs greatly from these in its chemical and physical properties. It is a colourless, limpid fluid, *not inflammable*, having an agreeable ethereal smell, and sweet taste. Its specific gravity 1·480, and it boils at about 140°. The formula is $C_2 HCl_3 = Fo Cl_3$. The process recommended by Dumas is that which at present ought to be observed: this is to distil chloral with milk of lime; or alcohol, pyroxylic spirit, or acetone, with hypochlorate of lime. The product is mixed with water, which separates the perchloride. It is rectified in the water-bath, dried by digestion with chloride of calcium, and finally distilled with oil of vitriol.

We have been thus particular in mentioning the mode of preparation, the chemical and physical characteristics, of chloroform, in order that our professional brethren may be guarded against imposition, and that this new anæsthetic agent may not unjustly be brought into disrepute. Every surgeon who purposes using it should be able to test its qualities, for the mercantile magicians are skilful enough to be able, by their enchantments, to imitate so closely genuine articles, that the hand of science alone can detect and expose them.

But, while we thus speak in praise of the new agent for producing insensibility, we think that it may also be employed with very great facility in the perpetration of crime. The volatile nature of the fluid, and the ease with which it produces insensibility, will suggest it as a suitable agent to injure or destroy individuals with little fear of guilty parties being detected. In this respect it is more dangerous than ether, which produces greater irritation upon the air-tubes when inhaled, is slower in its operation, and can be detected in the system for a longer period after its use, than chloroform. We think that, under these circumstances, this latter agent ought not to be permitted to pass into the hands of unprofessional individuals without its being known for what purpose they intend to use it. There can be no excuse at the present time for the sale of such an article to any others than the members of the medical profession, as the public are perfectly ignorant of any of its qualities save those which produce exhilaration and insensibility.

We trust, moreover, that none of our medical brethren will be tempted to use the knife prematurely to diseased members, in consequence of their being now possessed of an agent so easily applied to annul the pain of an operation. It oftentimes requires far greater skill to save a limb than to amputate one; and it will certainly afford a much higher satisfaction to the mind of the surgeon when he is able to establish the health of his patient without having recourse to a formidable operation.

In the obstetric department of the profession, however, the chloroform may be, perhaps, legitimately, and advantageously employed. Dr. Simpson has for some time constantly used it, without his patients experiencing unfavourable symptoms afterwards; and we understand that some of the London accoucheurs are beginning to follow his example. Here it possesses this singular advantage, that, while it renders the patient insensible to pain, it does not prevent the uterus from contracting with its accustomed force. In the employment of such a powerful agent, however, there should be exercised great judgment and discrimination; human life is infinitely valuable, and it is a high crime to place it in danger. While, therefore, the members of the profession are right in seeking out and employing means to alleviate human suffering, they are bound to use both wisdom and discretion when they select agents which have not only the singular property of annulling pain, but the dangerous one of producing death.

THE LAST EDITION OF THE APOTHECARIES' MANIFESTO.

The Apothecaries' Company has again made known to all quacks and unlicensed practitioners of medicine, that it is very wrong for them to be engaged in administering drugs to the sick public, and that the Society possesses the power of punishing them for their infringement of the law. Doubtless, this fresh announcement of an old tale will produce as much terror in the minds of unlawful practitioners as on former occasions, and they will continue to physic all who will permit them with the same vigour as ever. These official declarations the Society may think very efficient in restraining parties from poaching on the domain of medicine, and yet there is an impression amongst the licentiates that the parties against whom fulminations are launched fear them about as much as schoolboys do pellets from popguns.

Now, there is no doubt that at the present time there are great numbers who are practising as apothecaries without a licence, and are, therefore, exposed to the danger of prosecution; but the fact that the Company appears so unwilling to undertake the duty of bringing them before the legal tribunals of the country, not only makes those who are already engaged in unlawful practice increasingly bold, but encourages others to follow their example. Within the last few years it is well known that there has been a great increase of unqualified and uneducated medical practitioners, and, as a natural consequence, not only has the public been grossly imposed on, but the licentiates of the Company have suffered pecuniary losses. A spirit of discontent has, therefore, been experienced amongst them, and an earnest desire to obtain such a change in the laws relating to the profession as shall effectually protect them from the competition of those who have neither expended time nor money to obtain a suitable education.

The excuse which the Company makes for not prosecuting these persons is, that they do not possess the funds. This, indeed, is a declaration which the profession receives with a great deal of mistrust, as it is well known that great numbers pass an examination and receive a certificate, for which they pay either six or ten guineas. Now, the question naturally arises, What becomes of the money? Is it thrown into the Company's stock in trade, in order to swell the per centage which the members receive for their money invested? If so, then must we say that it is not exactly employed in the way it ought to be. The licentiates receive no favours from the Company whatever after they are ad-

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mitted, but are turned adrift upon the world to do what they can for themselves ; and they have not even the privilege of entering the Botanical Garden at Chelsea, without receiving a written permission from the master. But justice demands that the money paid for certificates ought certainly to be first employed in protecting individuals who have received authority to practise; and should there be any overplus, no one would then object to its being carried to the Company's account, to make a better per centage for the members. As poverty has been pleaded for the non-fulfilment of an imperative duty, it behoves the corporation immediately to place before the profession an account of the moneys received for licences, and the manner they have been expended since the year 1815. Should it be found that a vast expense has been incurred in devising and carrying out means for the improvement and protection of the profession, then we are quite sure that every general practitioner will come forward and help, so far as may be in his power, to establish a fund which shall be employed expressly to meet all expenses incurred in prosecuting those who practise the healing art without authority. But if, on the other hand, it should be seen that the licentiates' money has been used simply for the benefit of the Company, then will the plea of poverty be considered as only aggravating corporate guilt, because it has been brought about by a division of money which justice, if not law, required should have been first employed in protecting those from whom it had been received.

The time will speedily come when the Society will be called to resign the trust which for two-and-thirty years has been committed to it; and our earnest hope is that it will be enabled to do so gracefully, and with a clear conscience. We counsel them to prepare for such a period by at once commencing prosecutions against all uneducated individuals who are infringing on the privileges of the licentiates. These require protection—have long asked it—let them now have it.

MR. FERGUSSON, F.R.S.E.

We hear with gratification that it is proposed to publish a series of lithographic portraits of the most eminent members of the profession. The first of this series has appeared, and presents us with an excellent portrait of a distinguished contributor to our columns, the Surgeon Professor of King's College, a gentleman known to most members of the profession, and wherever known, respected. We cannot doubt that, if equal skill and happiness characterize the subsequent portraits, the series will meet with a very general encouragement.

CHLOROFORM.

[To the Editor of the Medical Times.]

SIR,—As there may be many medical practitioners in the country who cannot readily obtain supplies of this substance, the anæsthetic properties of which have recently been discovered by Dr. Simpson, (a) I think it not out of place to describe the way in which these gentlemen may prepare it for themselves, especially since neither are the apparatus or the materials expensive, nor does the process occupy much time.

The only chemical apparatus necessary are a spirit-lamp; a long-beaked stoppered retort; and a small funnel, to pour a liquid into the body of the retort without soiling the beak. The place of a retort-stand may easily be supplied by a kind of three-legged stool of fir, having a sufficient aperture in the top to support the retort steadily; and the lamp may be adjusted below it by pieces of wood, or a pile of books. The distilled liquid may be received in a flask, or a wide-mouthed bottle, into which the beak of the retort is loosely inserted a considerable way; and it will be proper to keep the receiver cool by covering it with a piece of blotting-paper constantly moistened with water.

These things being provided, we first put into the retort a quantity of fresh chloride of lime (calx chlorinata, "Edinburgh Pharmacopœia"), and then pour over this a mixture of water and rectified spirit. This is the method proposed by Dumas in the 56th volume of the "Annales de Chimie et de Physique;" and the materials are to be in the proportion of an ounce measure of rectified spirit, four ounces (by weight) of the chloride, and twelve ounces of water. The retort ought to be so capacious as not to be above a fourth filled with the ingredients.

The materials being introduced, we must now mix them the best way we can, or at least get all the chloride made wet, which will be the easier if it has been pretty well powdered. Shaking does not answer the purpose very well at first, and it is scarcely safe to introduce any kind of stirrer into a glass retort. A rod of light wood, or a strong goose-plume, may be cautiously drawn several times across the bottom of the vessel, and then agitation will accomplish the rest.

The heat of the lamp must at first be very sparingly applied, and it is not long till the removal of the retort-stopper discloses the peculiar odour of the chloroform. As we slowly increase the heat, we observe the mixture beginning to froth up, the odour issues from the mouth of the receiver, and drops begin to distil. All is now going on well; and it is only necessary on our part to watch, and be ready to reduce the heat when the frothing threatens to rise too high.

The products of the distillation are water, along with chloroform. But these at once separate by their difference of gravity; the chloroform settling at the bottom of the receiver like a clear heavy oil, while water, impregnated with its odour, swims on the top; and the distillation is to be continued as long as this appearance can be produced, which may be ascertained by applying a fresh receiver. The supernatant water is easily decanted; and our chloroform is then ready for use. For though, in chemical books, it is directed to be washed in strong vitriol, and then redistilled from carbonate of barytes, I apprehend this additional preparation to be quite unnecessary towards the medicinal application of the substance, since all that is aimed at is the removal of a trifling adherence of watery particles, which it is important to get rid of, only for the nice purposes of chemical research. I can, at least, certify that some I had myself prepared, without this further process, in the way described above, was administered with complete success at the New Town Dispensary in this city.

I am, Sir, yours, &c.,
SAMUEL THOMSON, M.D.
47, Castle-street, Edinburgh, Nov. 25.

(a) See "Account of a New Anæsthetic Agent," by J. Y. Simpson, M.D., &c. &c. Edinburgh, 1847.

CHLOROFORM IN SURGICAL OPERATIONS.

[To the Editor of the Medical Times.]

SIR,—Believing that the value of any discovery is to be tested by the aggregate of its results, I venture to offer my humble testimony, founded on experience, as to the benefit to be derived from the employment of the new anæsthetic agent which has been brought into public notice by Dr. Simpson, of Edinburgh.

It cannot be doubted that suffering humanity is deeply indebted to this distinguished physician for the introduction of chloroform as an agent in annihilating the sense of pain, since it leaves nothing to be desired, whether we consider its rapidity of action, the completeness of its narcotic effect, or the persistence of its sedative influence.

On the 22nd inst. I removed three painful molar teeth from a gentleman; on the 24th inst. I extracted two very painful stumps of bicuspid teeth from the mouth of a lady; and I have this day removed seven decayed and broken teeth from a young lady of a highly nervous temperament, and suffering from hysteria in a severe degree. In all these cases the patients were brought under the influence of the vapour of pure chloroform, and with perfect success.

It was gratifying to observe the complete absence of all excitement during the whole period of its effect; and that distressing difficulty of breathing which often accompanies the inhalation of the vapour of ether was in all these cases unfelt.

In employing chloroform, the extreme simplicity in the manner of using it with advantage is of singular value.

On a small sponge I poured about eighty drops of the perchloride of formyle; and, using the handkerchief of the patient to enclose it, I applied it gradually to the mouth and nostrils; in less than a minute the narcotic effect of the vapour was evident, and about thirty inspirations sufficed to produce complete somnolency. The return of consciousness in the majority of the patients was gradual, natural, and resembled the act of awakening from a deep slumber. In one case only I remarked a slight tendency to nausea.

I am, Sir, your obedient servant,
C. STOKES, M.R.C.S.,
Dental Surgeon.

65, Lower Brook-street.

CHLOROFORM A SUBSTITUTE FOR ETHER IN SURGERY AND MIDWIFERY.

In a paper recently communicated by Professor Simpson to the Medico-Chirurgical Society of Edinburgh, and still more recently printed and widely circulated among his proselytes, he recommends chloroform in preference to ether, and adduces in its favour as an anæsthetic agent, among others too numerous to name, the following reasons:—1. Much less quantity being required to produce the desired effect; 100 to 120 drops sufficient; and, in some instances, much less. 2. Its action is more rapid and permanent, hence much time is saved. 3. Its inhalation is more agreeable, possessing an agreeable, fragrant, fruit-like odour, and a saccharine, pleasant taste. Lastly, it produces none of the unpleasant symptoms of ether inhalation; it is likely to be much cheaper, requiring no special sort of inhaler, a few drops upon a pocket-handkerchief rolled into the shape of a common funnel, and so adapted to the mouth, answering every purpose.

Whether the exhibition of ether, or any such compounds, will, in a few years hence, be deemed as blessings or curses to human flesh, I will not pretend to prophesy; it appears to me that its claims, like many other novelties, mesmerism and a host of others, has been far over-estimated.

I have given ether, and seen it given by others, in a great number of instances, from the simple matter of extracting a tooth to that of extracting a stone, amputation of a finger to that of the leg and thigh; and in no instance of a capital operation have its after effects been so pleasant as would induce me to submit myself to its influence, should I ever be doomed to undergo a severe mutilation.

My objections to it may be summed up in a very few words. In all the instances where its soporific effects were well marked—that is to say, when the patients themselves spoke as to its undoubted efficacy in deadening the pain during the performance of the operation—the agonies after recovering from its effects have been of the most heartrending description; the writer has been driven to prescribe, lately, half an ounce of laudanum before the patient experienced any decided relief, and in many more instances half that quantity; distressing sickness has also been a common symptom, and venous and arterial hemorrhage, I think, oftener than when not employed.

I may state, further, that every precaution was used in procuring pure ether, as well as in selecting the best inhalers, and the utmost vigilance exercised in not allowing the patient to inhale more than what was deemed necessary to be effectual; yet, when the severed limbs were examined eight or ten hours afterwards, the presence of ether in the textures has been unequivocal.

For my part, I do not see so much likeness as to anticipate like effects: between the condition of a lady about to become a mother, and another, less fortunate, about to lose the better part of one of the extremities for the cure of a chronic disease of five or ten years' standing, ether or chloroform may serve to amuse as well as to ease the one, but not the other.

I abridge the Professor's details of the first case in which he employed the chloroform with so much eclat. The lady had been previously delivered in the country by the crotchet, this being the second confinement; in three hours and a half after the commencement of the labour, and before the termination of the first stage, a pocket-handkerchief, rolled into the shape of a common funnel, was moistened with half a teaspoonful of the fluid, and its open end adjusted to the mouth; in ten minutes the same

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quantity was repeated; the child was expelled in twenty-five minutes after the inhalation was begun, and the placenta soon followed. The lady was astonished, soon afterwards, to find that the child presented to her was "her own living baby;" and so the account goes on *usque ad nauseam*.

The Professor sincerely believes that some years hence the practice will be general, though, as he truly writes, obstetricians may oppose it; he is even so sanguine as to believe that the patients themselves will force the use of it upon the profession: I calculate no very safe guarantee of its utility if its use is to be forced upon them by the patients themselves. In a footnote to the same page is this piece of puff; for puff I will call it until I am convinced of my error:—"I am told that the London physicians, with two or three exceptions, have not used it in their midwifery practice;" and, from what follows, the physicians in the Irish metropolis are a century behind.

The motives which led the Professor to make these comments upon the practice of other men are best known to himself: does the Professor imagine that, by making these brochures, he will attract a few fair ones into his clutches? I am disposed to consider the affair no better than it should be, and certainly anything but redounding credit upon the author.

I am, Sir, yours,
AN HOSPITAL SURGEON.

[We have inserted our correspondent's letter, but we must not be considered, in doing so, as entirely agreeing with him in his opinions.—ED. *Medical Times*.]

POOR-LAW MEDICAL RELIEF.

[To the Editor of the Medical Times.]

SIR,—My letter to Sir George Grey, in your number of Nov. 20th, has called forth a letter from Mr. Garlick, for which I beg to thank him, and at the same time would invite rather than shrink from the criticisms of my professional brethren. One of my suggestions—the establishment of union dispensaries—he assumes to be "altogether impracticable." He says, "In his own district there are thirteen medical officers, three of whom reside in the town; the remainder are stationed in villages, at a distance of three, four, or five miles. The poor have first to travel to the relieving officer for an order; then they have to travel back to the medical officer to present the same; and, last of all, have to travel again for the medicine." Such is Mr. Garlick's description of the "wearisome travel" under the present system in his own neighbourhood. Under the system I would wish adopted "the wearisome travel" would be vastly abridged. In the first place, the visit to the relieving officer (who is generally from home four or five days in the week) is quite unnecessary, and would be abolished altogether by proper regulations from a central board of medical directors. The medical officer should be at once applied to, without any order from the relieving officer, unless the relieving officer is first applied to for sustenance. In nineteen cases out of twenty the parties applying for medical relief are proper objects for the charity, for the relieving officers assure me they do not refuse a medical order in one case out of twenty. In the case of a party applying to the medical officer whom the board may deem improper or illegitimate applicants, the medical man who has been summoned can legally and equitably claim a remuneration from the party who has applied to him, and if he is in circumstances which induce the board of guardians deliberately to refuse such relief, he must be competent to pay the medical man whose services on a false pretence he has required. If the board supply the medicines to the poor from their own dispensary, it would induce them to guard their own interests in cases of improper application. At present the guardians have no such interest, and, of course, care little, though their medical officers be saddled with cases of doubtful pauperism. I have always thought it a cruel regulation to oblige the poor to find out the relieving officer for an order before he applies to the medical officer, who, in cases of sudden sickness, ought to be the first person applied to. In my own practice I never refuse a pauper's personal application, and only demand an order afterwards in compliance with the regulations of the board. The pauper ought certainly to have free access to the medical officer, and that officer must exercise his own discretion as to the immediate emergency of the case. His own character is at stake if he refuses a case of real emergency, and if is only necessary for overseers and relieving officers to exercise the power of sending a medical order in case of the medical officer refusing to do his duty on the first application. Now, if the medical man knows he can recover by law from a person not a pauper for any attendance he may make under the false pretence of destitution, he will be ever ready to attend to cases of real or alleged emergency. Such, then, would be my plan to relieve the pauper of his "wearisome travel" to the relieving officer, who half his time is not at home. I have had considerable experience in pauper cases, and I am quite sure the medical man can relieve immediately in a great majority of cases with his lancet and instrument-case, and a little pocket-box of pills and powders ready prepared for use. For the continued treatment of the patient a prescription, written by the medical man at the house of the pauper, may be despatched to the dispensary, either on the same day or the day following, according to the circumstances of the case. If the dispensary is centrically situated, as at the post town of the union, the ordinary postman can carry the packets of physic to those of the poor who prefer the postage to the journey. Such is the case in my own district, and some of my parishes are situated five miles from my own private dispensary. I cannot, therefore, conclude with Mr. Garlick, that a public union dispensary would be impracticable for the village districts. I think Mr. Garlick's thirteen medical officers for his thirteen districts, within five miles, afford thirteen reasons for the employment of a central dispenser.

If Mr. Garlick thinks "poverty of payment" the only evil connected with poor-law medical relief, he cannot have taken an enlarged view of the subject; and I would recommend to his reperusal "the much that is good" and "the much that is true" which he says he has found in my letter to Sir G. Grey. I am happy to inform him that Sir George Grey has assured me by letter, received last week from the Home-office, that my suggestions shall be brought under the consideration of the new board as soon as constituted.

I am, Sir, your most humble servant,
Blandford, Nov. 29. E. O. SPOONER.

P.S. I believe the medical officers are perfectly satisfied with the extra fees allowed by the last orders of the poor-law commissioners; the fixed salary is the only bone of contention, which Mr. Garlick properly calls "poverty of payment." The central medical board, according to my plan, would adjust these difficulties on receiving the reports and complaints of their medical officers. Mr. Garlick says—"Leeches, quinine, and sarsaparilla would be furnished in abundance if the proper pay were made by the guardians." I am surprised to find he makes an "if" of the matter, as he is so sensitive of a libel on his medical brethren. It only shows, however, that the plan of dispensaries would render certain that which now depends on an "if."

I am sorry Mr. Garlick, while assuming the impracticability of these dispensaries, should have launched beyond his depth into political economy, and deplored an equally imaginary mare's nest—the duty on leeches—as pressing hard on the union surgeons. Why, Sir, the duty on leeches was abolished altogether by the tariff of 1845. They have been since admitted duty free. Union surgeons should be careful not to mix up imaginary with real grievances. Incautious statements only do injury to their cause.

POOR-LAW MEDICAL RELIEF.

[To the Editor of the Medical Times.]

SIR,—Having been engaged in parochial medical attendance in different unions for the last twelve years, I am induced to offer a few brief remarks on some of the points referred to in the petition of Mr. Spooner, of Blandford, contained in your last number.

It is undoubtedly most desirable that a medical board should be connected with the poor-law administration, to which professional questions might be referred when necessary. Boards of guardians, however well constituted, are necessarily incompetent to solve the purely medical questions which occasionally come before them, and would generally willingly refer them to such an appropriate tribunal; and from thence a due measure of justice might be anticipated either for or against a medical man, even in accordance with the merits of the case. That some such arrangement should exist is certainly the feeling of the whole body of union medical officers.

The establishment of parochial dispensaries, so that the medical officer should no longer have any interest in the cost of the drugs, nor the burden of pharmaceutical duty, may probably be advantageous in thickly-populated town districts, and in many, I believe, such institutions have been made available; but the adoption of such a system in rural districts is very objectionable, partly for the same reasons which militate against the analogous arrangement in private practice. The sending backwards and forwards, first to the surgery, then to the dispensary, would greatly enhance the trouble and inconvenience of the pauper, at the same time that the medical man would not have the advantage of being able to act immediately in accordance with the last information received, where the patient was resident at a distance. For example: I hold an outlying district, and reside at the distance of two miles from the spot, which, under an arrangement like that proposed, would probably be the central station for an area of eight square miles, containing 6000 or 7000 inhabitants. Now, I am this day in attendance on a distant pauper patient, suffering with nephralgia and obstructed bowels: I have been able to see him once only, but I have also twice received messages, and, consequently, on each occasion have been able at once to send the necessary medicines, which, under the other arrangement, must have been sent for at a further distance of two miles hence, causing much delay and other inconvenience. Also, like other medical men, I have numerous parish patients in attendance each morning, both from a distance, as well as belonging to the immediate neighbourhood, and who suffer with chronic or subacute complaints: it is little trouble for me to dispense the medicines they require; but to refer them to a different locality for the dispensing of my prescriptions would of necessity entail much detention and other inconvenience upon them. I feel assured, indeed, that district dispensaries in rural neighbourhoods would be far from rendering the medical relief more efficient, at the same time that the expense would be much augmented thereby. It is, I think, very rare for a medical man to incur the suspicion of withholding any necessary medicines, however expensive, and in none of the unions with which I have been connected have I ever heard such an imputation raised. It is, however, but right and proper that union medical officers should keep a daybook for the entry of medicines, &c., supplied to their pauper patients; it is necessary even for their own reference; and, if a proper register for the purpose were supplied, it might be made available by the guardians, and more especially the medical board, for reference when desirable, affording some evidence and guarantee as to the nature of the medical treatment, and at the same time our present unsatisfactory and complicated returns might thereby be facilitated and simplified.

The remuneration of medical officers has always been a question of much difficulty, both as to amount and the mode of computation. Fixed salaries and per-case payment have each been advocated, and I think the two systems may be advantageously combined. The rural district to which I am appointed is of moderate extent, and the remuneration is above the average. I find that I receive, besides extras, nearly 3s. 6d. per case. With 5s. I should be well satisfied, and so I fancy would most of my medical brethren, though, of course, such remuneration should vary according to the nature of the district. There can, however, be no doubt that, when payment is in immediate contingency on the number of orders, there is a direct motive for harsh and parsimonious guardians and their unfeeling subordinates to curtail the amount given as far as possible; whereas, under the fixed-salary system, on the other hand, our services are often most unfairly trespassed on; but, were this immediate contingency removed, it might be otherwise. Now, I would propose that, under fresh regulations, at the commencement of 1848, an estimate should be made for each district of the number of cases which shall have occurred in 1847, and that such a calculation, in connection with so much per case, according to a table constructed for the purpose, embracing the consideration of population, distance, &c., should furnish the basis of a computation of the salary for the current year, and that such calculation should undergo renewal and revisal each succeeding year in a similar manner. During the intervals between the board days, relieving officers and overseers ought then at their discretion to be empowered to issue what might be termed half orders, which should be in force until the guardians, at their weekly meeting, could decide on their confirmation or discountenance; and this would prevent the chance of the paupers being neglected, at the same time that it would ensure some prospective advantage to the medical man, who would, of course, only attend under official direction. The present system of fixed medical salaries for attendance in gross certainly promotes pauperism, for it is not the popular feeling that a person makes

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a pauper of himself by receiving a medical order; and it is too frequently the case, especially with overseers, that a person seeking an order, whether fairly or unfairly, has only to ask and to have. An arrangement such as I propose would certainly save the medical officer much trouble and annoyance, and occasion some increase of salary. Enclosing my card,

I am, Sir, your obedient servant,
Surrey, Nov. 23. O. P. Q.

NOTE FROM MR. TEEVAN.

[To the Editor of the Medical Times.]

SIR,—A pamphlet, entitled "An Exposure, &c.," by J. Teevan, B.A., having been of late industriously circulated for the express purpose of puffing into notoriety a practitioner of the name of ——, whose mode of treating certain diseases it extols, you will allow me, I hope, to state in the *Medical Times* that the said pamphlet has not emanated from any person bearing the name of Teevan, and that no person of the name has ever resided at the address given in the pamphlet. I am anxious to disclaim any connection with the pamphlet from the fact of the name being an uncommon one, and myself and brothers being medical men, and the only persons of the name, I believe, in this metropolis—circumstances calculated to produce, and which have already produced, misapprehension as to its authorship.

I have the honour to be, Sir, your very obedient rvant, WILLIAM TEEVAN.
23, Bryanston-square, Dec. 2.

ROYAL SOCIETY.

This (Nov. 30) being St. Andrew's Day, the Royal Society held its anniversary meeting, the Marquis of Northampton, President, in the chair. There was a large assemblage of the fellows present.

After the Noble President had awarded the Copley Medal to Sir John W. Herschel; and the two Royal Medals, the one to Mr. Grove, and the other to Dr. Fownes; Dr. Roget, the senior secretary, addressed the meeting to the following effect:—

"MY LORD,—I wish to take the opportunity afforded me by the present assemblage of the fellows, to announce to them my intention of retiring, at the next anniversary, from the office I have so long had the honour of holding in the Royal Society. This determination, as many of my friends well know, has not been formed hastily, and I would have carried it into effect some time ago, had it not been for the peculiar circumstances in which I found myself placed.

"The duties required of the senior secretary have, in the process of time, become much more laborious and much more arduous than they were at the time of my appointment to that office, when I succeeded Sir John Herschel in the year 1827, which is just twenty years ago. During this long period, which, I may be allowed to remark, constitutes a large portion of human life, I have witnessed considerable changes in the society. There have been changes of presidents, of secretaries, of librarians, of assistant-secretaries—in fact, all the offices in every department, from the highest to the lowest, have undergone repeated changes. I have seen, in the course of these events, various changes of administration, and many important alterations in the mode of carrying on the business, both of the society and of the council; and these alterations have been constantly attended with increased labour to the secretaries.

"It is since the period of my first appointment that the council have undertaken the office of assigning the channel through which the royal favour is to flow, in the distribution of the Royal Medals—an office the proper performance of which, as your lordship well knows, is generally difficult, often delicate, and sometimes invidious, and of which the trouble and responsibility have been felt by the council to be so great, that they have found it expedient to delegate the larger portion of that responsibility and trouble to separate standing scientific committees, which they appoint from year to year. To these committees they have also consigned the task of determining the selection of papers for publication in 'The Philosophical Transactions.'

"Another circumstance which has added considerably to the labour of my office, is the practice now adopted of having all the proceedings, both of the society and of the council, printed and published to the world. Upon me has devolved the whole of the editorial labour of these publications, and the superintendence of the minutiæ of the press; not to speak of the far greater care and attention required in preparing the abstracts of the papers read to the society, compared with what was sufficient for the purpose when these abstracts were merely read at the meeting, and then consigned to oblivion in the archives. All these causes, and many more that I might mention, have concurred in rendering my office anything but a sinecure. In fact, every new measure that was adopted entailed on me greater toil, made larger encroachments on my time, and imposed on me more extended responsibility. Notwithstanding these additional burdens, and amidst the breezes I have weathered, and the battles I have been compelled to fight—for your lordship can bear witness that occasions have not been wanting to put my zeal for the society to the proof—I have never shrunk from those duties, but have devoted my best energies to the service of the society, and the promotion of its interests. Having now grown grey in that service, I think it best to retire while my strength is yet unbroken, and before the changes which the society is now undergoing shall cause fresh demands to be made upon it; that I may dedicate the remaining term of life that may yet be spared me to those pursuits of science to which I have ever been warmly attached, and with which the labours and the cares of office have seriously interfered.

"I have alluded to the existence of some peculiar circumstances which had prevented my taking this step some time ago. These circumstances must be fresh in the memory of most of those who now hear me: they sprang from a series of malignant attacks, carried on with extraordinary pertinacity during nearly two years, against the society and your lordship, but principally against the Committee of Physiology; and these attacks were pointed more particularly against myself, under the erroneous notion that I was especially responsible for the proceedings of that committee; whereas, in reality, of all its members, I was the one who was least implicated in them. While the battle was raging I could not, in honour, withdraw from the field; my duty was to remain at my post and abide the pelting of the storm. But, these squalls having now blown over, I feel at liberty to retreat, and to resign into your hands the trust you have so long and so liberally reposed in me. I should have tendered this resignation on the present day, had I not considered that the interests of the society might suffer by your being suddenly called upon to choose a secretary; and that the more proper and respectful course for me to adopt, was to give due notice of the vacancy; and I have accordingly allowed my name to be placed before you as candidate for re-election in the balloting list recommended by the council. If you are pleased to accept the tender of my services for another year, ample time will be afforded the society for making selection, at the end of that period, of the person best qualified to fulfil the duties of secretary."

Dr. Roget then read the biography of some of the deceased fellows; and the meeting afterwards proceeded to ballot for the officers and council for the ensuing year, when the following noblemen and gentlemen were elected:—President, the Marquis of Northampton; treasurer, G. Rennie, Esq.; secretaries, Dr. Roget and S. H. Christie, Esq.; foreign secretary, Lieut.-Colonel Sabine; members of council, T. Bell, Esq., R. Brown, Esq., Sir J. Clark, Bart., S. Cooper, Esq., Sir H. De la Beche, Professor E. Forbes, J. P. Gassiot, Esq., Professor Graham, J. T. Graves, Esq., Sir J. F. W. Herschel, Bart., Sir R. H. Inglis, Bart., W. Hopkins, Esq., C. Lyell, Esq., the Duke of Northumberland, G. R. Porter, Esq., Lieut.-Colonel Sykes.

The fellows afterwards dined together at the Crown and Anchor Tavern.

THE CHOLERA.

The *Prussian Universal Gazette* contains the following, dated St. Petersburg, 17th ult., relative to the progress of the cholera in the Russian empire:—"The cholera was decreasing at Moscow since the 3d of November. On the 5th there were 94 patients, 49 of whom died, and 39 recovered; and on the 9th, out of 77, 32 recovered, and 22 died. Since the 30th of September, the day on which the epidemy first manifested itself, 2,011 inhabitants were attacked, 930 of whom died, 422 recovered, 639 were under medical treatment, and most of them were expected to survive. From Moscow the scourge extended to several districts of that government. At Kiew it was on the increase. At Kasan it rapidly decreased; and on various other points of the empire it presented a less pernicious character. During its passage from the government of Astrakan to that of Saratov it was observed—1. That in its march towards Saratov it constantly advanced against the wind. 2. That, as in 1830, it again spared the colony of Sarepta, although the communication of the latter with the neighbourhood had not been interrupted—a fact which cannot be attributed to the position of Sarepta, for it nowise differs from that of the other localities watered by the Wolga. It is, no doubt, owing to the absence of an indigent class, which is usually the most dangerously affected by the cholera. The inhabitants of Sarepta are industrious, in comfortable circumstances, and remarkable for their cleanliness and sobriety; they descend from a Moravian colony, founded in 1766, in a country full of salt springs. 3. That in passing from Kamuchin to Saratov the cholera had spared the foreign colonies on its passage, but had returned thither later, when it had lost much of its intensity at Saratov. The distemper manifested itself in those villages of colonists immediately after the arrival of travellers coming from Saratov, who already laboured under it on their arrtval, or were attacked with it shortly afterwards. The period of its incubation did not, in any case, exceed four days. This would prove that the epidemy is communicated by the persons. It was also observed at Saratov that the inhabitants of the localities visited with the cholera were less liable to catch it in their intercourse with the patients than those who arrived from a district in which it had not yet appeared. The epidemical character of the disease was particularly proved by persons suffering during its prevalence from pain in the pit of the stomach, from a general feeling of uneasiness and want of sleep although the rest of the body experienced no derangement. According to the most recent accounts, the cholera appeared in the government of Kaluga, in the district of Lichwin, on the 29th of September; and on the 21st of October in the town of Kaluga, where during the first week seven cases occurred, five of which proved fatal. On the 1st of November it broke out at Kechitza, in the government of Minsk, where it attacked during the first day four persons, three of whom died."

"We did not think proper," says the *Sémaphore de Marseilles* of the 27th ult., "to mention the occurrence of a case of cholera on board the Mentor steamer during her passage from Constantinople to Malta, for fear of uselessly alarming the population. We can now announce that the first lieutenant of the vessel died from the visitation of that dreadful malady, and that the Mentor, after landing her passengers in the lazaretto of Malta, is now undergoing quarantine at the Frioul. The sanitary board of our city, on the declaration of the commander of the packet, adopted the necessary precautions. On

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the arrival of the Mentor on the 23d it decided that she should be subjected to a rigorous quarantine of twelve days, and that the cargo should be landed in the lazaretto. The sanitary board, moreover, decided that all steamers without distinction arriving from countries where the cholera prevails, although no cases or deaths occurred on the passage, should be held to perform a quarantine of ten days. That quarantine is to be augmented in proportion to the number of cases that may have manifested themselves on board."

GOSSIP OF THE WEEK.

THE CHOLERA.—The *Sémaphore de Marseilles* of the 24th inst. contains the following notice of the supreme magistrate of the Board of Health of Naples:—"Whereas the cholera is now ravaging the harbours of the Black Sea; considering that, by the activity of the trade carried on between those harbours and the French harbours, vessels may arrive in the latter having on board men attacked with cholera, who might compromise public salubrity in his kingdom, and also in Sicily; considering that the steam-packets of the Austrian Lloyd, in their periodical passage between Greece, the Ionian Islands, the Austrian harbours, and those of the Black Sea, may have communicated, in those localities, with vessels on board of which cases of cholera have manifested themselves; considering that under those commercial circumstances it is indispensable likewise to include Malta: the supreme magistrate of the Board of Health of Naples has decided that all vessels having left, or leaving, France and Malta, for the kingdom of the Two Sicilies, after the 1st of November, must be furnished with a certificate of the Royal Consul of his Majesty, stating not only that no epidemy prevails in the port of departure, but that no vessel has entered it with cases of cholera on board; and, in the event of such cases having occurred, the certificate must indicate what measures have been adopted; and if the vessels in question bring a certificate with such an affirmative declaration, or if they be not furnished with that certificate, free pratique shall be suspended until further orders. The supreme magistrate also desires that the above-mentioned measure be applied to vessels arriving from Greece and the Ionian Islands."

INFLUENZA AT MARSEILLES.—Individuals arriving from Marseilles inform us, that of a population of 160,000 souls, the half at least is confined to bed through the influenza, which has broken out in this town within the last week. Persons of an apprehensive nature—and Marseilles is full of such—remembering that the influenza preceded the cholera morbus, and reading in the journals the new itinerary of the Asiatic scourge, feel their terrors increase, though the present epidemic is as inoffensive as the former one. A very curious fact connected with the influenza at Marseilles is, that the LUXOR, a steamer from Alexandria to Marseilles, arrived in Egypt, having the influenza on board. Its progress was such that the steamer could not continue its voyage as far as Syria.—*La Presse.*

FEVER ON BOARD THE SYREN SLOOP.—Intelligence has reached England that African or yellow fever has lately committed fearful ravages on board the Syren, 18, Commander Challoner, west coast of Africa. The vessel had touched at Sierra Leone and the Bahamas, and had also sent her boats up the Sherbro; it is, therefore, uncertain whence the fever was brought on board. Lieutenant Probert, the first lieutenant, and six men, have died, and there were still ten cases of fever in the Syren when she was last spoken with on her way to Ascension. The Syren was some months since sent to the coast of Africa station from the Mediterranean.

CHLOROFORM.—Operations have been performed, while patients were under the influence of this agent, by Messrs. Liston, Fergusson, Aston Key, and by almost all practitioners; and by Mr. Robinson, Mr. Waite, and Mr. Cartwright, dentists.

MEDICAL APPOINTMENTS.—On Nov. 26, H. Haynes Walton, Esq. was unanimously elected as surgeon to the Saint Pancras Royal General Dispensary.

APOTHECARIES' HALL.—Gentlemen admitted members on Nov. 25: Ezra Harle, William Faithfull, John Pince Challacombe, George Hodges, and Thomas Park.

CHOLERA.—The *Frankfort Gazette* announces that this disease has appeared on the frontiers of Prussia. At Constantinople a death from cholera had occurred previously to Oct. 27.

The influenza continues to spread in an alarming manner in Paris, where it is calculated the cholera would arrive in a few months. Already in Marseilles precautionary measures were ordered by the authorities against the epidemic. The accounts of the progress of the disease in Russia (given elsewhere) show that it had carried off considerable numbers of persons in its progress.

OBITUARY.—On the 25th ult., suddenly, at 40, Guildford-street, Scrope Hutchinson, M.D., in his 66th year.—On the 28th ult., Dr. William Wilson, surgeon R.N. (1802), aged 66.

MORTALITY TABLE.

For the Week ending Saturday, Nov. 27, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	1677	1046
SPECIFIED CAUSES...	1676	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	415	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	150	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	174	157
Diseases of the Lungs, and of the other Organs of Respiration	634	333
Diseases of the Heart and Blood-vessels.....	52	34
Diseases of the Stomach, Liver, and other organs of Digestion	96	74
Diseases of the Kidneys, &c.	16	9
Childbirth, Diseases of the Uterus, &c.	11	14
Rheumatism, Diseases of the Bones, Joints, &c. ...	10	7
Diseases of the Skin, Cellular Tissue, &c.	6	2
Old Age.....	87	65
Violence, Privation, Cold, and Intemperance.....	25	29

TO CORRESPONDENTS.

THE "MEDICAL TIMES" may be procured by an order on any Newsman or Bookseller, or it will be sent direct by post from the Office of the "Medical Times" to Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Pound Five Shillings IN ADVANCE, which will free them for Twelve Months. Half-yearly Subscription, 15s.; Quarterly, 7s. 6d.

"Limericensis."—We cannot allow the remarks of our correspondent to appear in our columns without our being in possession of his name. The parties whom he has attacked have very properly replied to his former remarks, and appended their names to the letter. If "Limericensis" has truth on his side he will not fear to follow their example in this respect.

"Dr. Thomas Little, Sligo Royal Infirmary."—The subject shall receive a very early notice from us.

"A Subscriber."—We should feel obliged if our correspondents would adopt some more expressive term than that here used, in order that they may be distinguished in the notices to them. We have so many communications from subscribers that we fear oftentimes that some confusion must arise. In reference to the question proposed, we should say that it would be dangerous to engage in general practice without the apothecaries' license, for, though the Company might not prosecute, there may be others who would.

"Mr. Kaye, Surgeon, 17, Marchmont-street, Russell-square."—There is no doubt that blind persons can be taught the art of writing. The desired information in reference to apparatus may be obtained at the Blind School in the Borough.

"A Young Subscriber" writes:—"I shall feel much obliged if you, in your next, or in some future number of your valuable paper, will enumerate for me the number of schools of surgery in Glasgow; their respective respectability, and the terms of each. Also, whether the Andersonian and the Glasgow Universities are one, or different establishments; and will certificates received at the Andersonian be admitted at the Glasgow University?" Consult the "Students' Number" of the *Medical Times.*

"Senex, Bridgewater," sends us a long article "On the dangers arising from the exhibition of anæsthetic agents." He says, "The present age is characterized by a temerity perfectly unknown to practitioners who lived in the time of John Hunter; and I have no doubt that much mischief will result from the use of agents sufficiently powerful to produce insensibility and even death. I am sure that, if persons are to be made dead drunk by a few inhalations from a pocket-handkerchief, the Government ought to interfere to prevent the use of such a thing as chloroform, except under the superintendence of a medical practitioner." Our correspondent's fears are mostly groundless, as we believe that all due caution will be exercised by the members of the profession in the uses of chloroform. We think also that the public ought not to be permitted to have and to use of their own free will so dangerous a commodity.

"Mr. Belmont."—The communication was received too late for insertion. We have, therefore, according to request, returned it.

"Mr. Baird, Manchester."—The communication has been received.

"Medicus."—The chloroform has been repeatedly used in Paris, and with complete success. M. Flourens, we believe, was the first who noticed its anæsthetic properties; but to Dr. Simpson the credit is due of having first brought it into practical employment in surgery and midwifery.

"Tyro."—No other apparatus is necessary for the administration of chloroform than a pocket-handkerchief. Insensibility frequently manifests itself in less than two minutes. A feeling of nausea is often experienced on a return of consciousness.

"A Member of the Profession."—A list of the members of the Institute was published last September, and may be had on application to Mr. Ross, Sec., Hanover-square Rooms.

"Beta."—The subject of medical reform is not forgotten either by its friends or foes: the former are making preparations in order that some good measure may be carried, if possible, this session; the latter are busily engaged in laying plans for the purpose of hindering the great body of the profession from attaining their just rights.

"Examiner."—The case is not drawn up with sufficient care, yet there are many good points in it.

"Mr. T. B. Benton."—The paper, by some mistake, has not reached us.

"Alpha."—The complaint ought to be addressed to the governors of the hospital, who have the power of redressing the grievances complained of.

"T. B. B., Edinburgh."—The College of Surgeons will admit to examination with the certificates mentioned.

The immense mass of communications on the poor-law must be deferred, but will not be overlooked.

"Lancet" writes us as follows:—"I have been for years a qualified surgeon, and, although not an apothecary, have recently become a general practitioner. I intend going up for my examination, and qualifying as an apothecary, next month, and have been for some time working hard for that purpose. Of this fact the Court are apprised. Would you kindly inform me, whether it is likely criminal proceedings, for practising without license, could, in the mean time, be effectively instituted against me? If so, what are the best means I could adopt to protect myself from the consequences of an [illegible]ent; and whether the Hall, whose aid I apprehend would be indispensable to sustain such a proceeding, would, under the circumstances, assist in its institution against me?" We have no doubt that a prosecution could be maintained under the circumstances, but we think the Company would not sanction it, with a knowledge that the party intends to apply for the certificate.

"M. A."—The attack of our correspondent is certainly undeserved.

"F. G. P." (Exeter) should reconsider his communication. If the main fact of the statement be well stated, we shall not object to the publication.

"Amator Reipublica."—The paper is unsuitable.

"M. D."—A defence of Dr. Burrows can surely not be expected from attacks in such a quarter. Much abuse, unscrupulously used, is explained by the fact, that Dr. Burrows, at the head of a deputation from the College of Physicians, protested to Sir George Grey against the unnecessary presence of the man that now assails him. Personal attacks, originating in such causes, cannot be too sharply reprehended by sensible persons.

Letters and communications have been received from Mr. Pechey, Bury; Mr. Waldie, Liverpool; Mr. Lauden, Shiffnal; Dr. Moses, St. Asaph; Dr. Fenton, Hallgate; Dr. Cameron; Dr. Fraser; Mr. Griffiths; Limericensis; Dr. Thomas Little, Sligo Royal Infirmary; A Subscriber; Mr. Kaye, Surgeon, 17, Marchmont-street, Russell-square; A Young Subscriber; Senex, Bridgewater; Mr. Belmont; Mr. Baird, Manchester; Medicus; Tyro; A Member of the Profession; Beta; Examiner; Mr. T. B. Benton; Alpha; T. B. B., Edinburgh; Lancet; M. A.; F. G. P., Exeter; Amator Reipublica; M. D.

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No. 428. **SUMMARY.** Dec. 11.

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ORIGINAL LECTURES.

A COURSE OF LECTURES ON SURGERY.

BY

SAMUEL COOPER, Esq., F.R.S.,

Professor of Surgery to University College, London; Consulting Surgeon to London University Hospital, &c.

Lecture XX.

Gentlemen,—I mentioned, at the close of my last lecture, that, in your estimate of the probable degree of your patient's recovery from the effects of burns, you should have regard to the disfigurement which generally remains after extensive injuries of this kind. In the figure on my right hand you see represented dislocation of the finger succeeding a burn of the wrist and hand. Sometimes a joint is dislocated, or permanently fixed in a useless position, by the violent contraction of the cicatrix; the forearm is often contracted in this manner, the thumb or fingers are drawn back against the bones of the carpus. In other cases you have the lip drawn away from the mouth, or the eyelid is very much distorted. On the table is a cast exhibiting the chin drawn and fixed upon the sternum by the operation of the same principle. It is an advantage to have the burn situated on the back of the limb or trunk, because the flexor muscles preponderate there, and their movements oppose the contraction of the cicatrix. The contraction is, however, sometimes so violent as to produce effects of a far more marked and serious character than those I have named. Dupuytren relates a case where the penis was drawn up to the abdomen, and retained there in a position resembling that of a quadruped. In another case the thigh was drawn up in a bent position, and the skin of the abdomen became attached to the upper part of the thigh. This patient had also a hernia, and the position of the thigh prevented him wearing his truss; upon every attempt to extend the limb thick folds of the cicatrix projected, and made it impossible to apply the truss. Cases occasionally transpire where the surfaces in contact become covered by a skin or web, the eyelids grow together, the ears adhere to the scalp, or the fingers are united by a web; and these, after division, have a tendency to reproduce themselves a hundred times if the surgeon does not know how to go to work to prevent that result. In burns of the fifth degree the consequences are usually very serious, and spring from many causes; the muscles and tendons being destroyed, the use of the limb is in danger of being lost for ever; the bones, being denuded and exposed to the air, are liable to necrosis; copious suppuration taking place, the patient is rendered hectic; the synovial membranes are injured, and the joints are likely to inflame.

In no branch of surgery is there more variety of practice than in the treatment of burns. Some are very much in favour of cold applications, but you would not employ them in the case of an extensive injury on the trunk; if you should, the degree of depression of the system produced, showing itself in the fall of the pulse, and similar symptoms, would be so great as to diminish very much the patient's chance of recovery. In my opinion, you should not use cold applications to the head and face at any time. If you have a burn on the hand, or any other part removed from the centre of the system, or if the injury is slight and superficial, the case is different, and you may use the evaporating lead lotion, with a small quantity of camphorated spirit in it; or, what Dupuytren recommends, sulphate of zinc, with laudanum in it. In such cases the indication is to keep down the inflammation, and, where possible, to prevent or limit the formation of vesicles. But this cannot always be done, and the surgeon's duty is then to mitigate the severe character of those vesicles, so as to prevent them from becoming painful and troublesome ulcers. In our own hospital, as well as in several others in the metropolis, flour is very much used, being sprinkled on the surface with a dredger, not only in superficial burns, but in those of the third and fourth degree. It is considered that the absorption of the discharge and the exclusion of the air are by this means promoted, and there can be no doubt that it is a very good application, as any one may easily understand who reflects that it is very soft, and does not need very frequent changing, which is detrimental. It is well known that when ulcers are frequently uncovered, or much exposed, an unfavourable effect is produced, and the same is true of burns. The flour should be continued until the cuticle is formed and the parts evince a healthy and sound state, when it may be loosened preparatory to its removal by poulticing. In some cases you must remove the flour before the usual time, because, being blended with the discharge, it becomes harsh, and produces irritation, which must not be allowed. After the removal of the flour, there is generally a tendency to luxurious granulation; but, if there should not, flour may be again employed, or a liniment of equal parts of lime-water and olive oil may be used, a dressing to which Sir Astley Cooper was very partial, in cases where cold applications were thought objectionable. The turpentine liniment, or yellow basilicon thinned with turpentine, was a successful application, we may infer from its general use, as it forms a coating for the burnt surface and keeps it from exposure to the air, which I told you was detrimental; but since flour came into use, it has not been so much thought of. In America and in Scotland, raw and carded cotton has been very much used for dressing superficial burns. A thin layer of carded cotton is spread out and laid upon the burnt surface, and, like the flour, it is retained there until cleanliness and the patient's sensations dictate its removal. Dr. Anderson tried it at Glasgow, and speaks highly of it, but I do not think it has been much used in London. The cotton is sometimes covered with a collar, drawn moderately tight.

Burns of the second class, attended with vesication, admit of the same treatment by flour, carded cotton, or lime-water, and linseed-oil ointment, as those of the first class. But you will have in addition to deal with the vesicles which are present in burns of this degree, and the question will then arise, what are you to do with them—leave them undisturbed, or make an opening in them? Whichever plan be followed, you will often have ulceration of the cutis under them. I usually, when the vesicles are large, let out the fluid by making a puncture with a very fine-pointed instrument, as the air is thus admitted in as small degree as possible; this method has the sanction of Dupuytren. When the cutis is exposed we may promote the formation of a new cuticle by applying the liquor plumbi acetatis, or a lotion composed of two grains of the sulphate of zinc to each ounce.

Burns of the third and fourth degree, in which eschars and ulcerations are unavoidable, may also be treated with lime-water and linseed-oil liniment, poultices and fomentations, flour and the turpentine liniment, until healthy pus begins to be secreted, and granulations form, after which they should be discontinued, and a mildly astringent ointment, such as the calamine cerate, or the zinc and spermaceti ointments, mixed in equal proportions, may be used. You will find that burns, above all other sores, have a tendency to produce high fungous granulations, which not only retard the healing process, but also, if not dealt with in time, produce a very ugly, thick protuberance, almost as hard as cartilage, and very difficult to be got rid of. To hinder the formation of such a mass, you should apply the nitrate of silver, or sprinkle the part with a powder of myrrh and calamine; or, if the situation of the burn admit of it, apply straps of adhesive plaster. When the parts are reduced to the condition of eschars at the time of the accident, or are so injured as afterwards to slough, the treatment will not differ greatly from that of mortification; emollient applications, poultices, and fomentations will then be serviceable. Some practitioners consider that the turpentine liniment has a specific virtue in these cases. Dr. Kentish, who was the first to introduce it, used first to bathe the parts with warm camphorated spirit, and then cover them with the turpentine liniment. When pus commences to be secreted he discontinues the liniment, and uses a milder dressing, as the calamine cerate, or the ceratum plumbi acetatis. In order to repress exuberant granulation, he introduces powdered chalk into the cavities left by the separated eschars.

I stated that much difference of opinion prevailed upon some points in the treatment of burns. There are, however, some leading principles, well established, which it will be your duty to keep in view. All surgeons coincide in the propriety of preventing, by a suitable covering, the access of air to the burnt part. They

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also agree in the necessity of removing the dressing as little as possible, and many will not suffer the dressing to be removed until the suppuration is well established. When it is necessary to expose the surface by removing the dressing, it will be advisable to do so by degrees, instead of taking them off all at once.

The constitutional treatment next claims our attention, and this depends very much upon the particular stage in which you have to treat the patient. If you have to do with the first period —the period of irritation, as Dupuytren calls it —in which danger arises from the shock of the system, often accompanied by violent agitation, shivering paleness, coldness, stupor, and collapse, you will not think of doing anything which might depress the system, but rather put every means in motion to bring about reaction, raise the pulse, and strengthen respiration, by keeping the body warm; administer opium, brandy, wine and water, ether, and add a dose of opium. If your patient be a child a warm bath may be used, and this is a method which Dupuytren adopted extensively with advantage. There are, however, many cases in which the removal implied in this remedy would do a positive injury. When the collapse recedes, and inflammation comes on, antiphlogistic treatment must be adopted. The second period of suffering and danger is marked by the loosening of the sloughs and eschars; and here antiphlogistic treatment is necessary, as in ulcers; bleeding must be resorted to, with leeches, although some surgeons of whom I have heard have had recourse to venesection. At this time opium must not be neglected, and the saline mixtures are of great value. The third period of danger is marked by profuse suppuration, which will cause an exhaustion of the system, to check which all your exertions must be directed. For this purpose you must administer purgatives, apply astringent lotions, and afterwards follow with bark, diluted sulphuric acid, and opium and wine, in small quantities. There is a rule respecting diet in cases of burns, which requires that it should not be lowered too suddenly or to too great an extent. In the hectic or fourth stage of danger, the treatment is the same as has already been explained in speaking of hectic fever. The diarrhœa, which is common at this period, Dupuytren succcesfully treated, according to his statement, by giving half a grain of opium and one of sulphate of zinc, three or four times a day.

The disfigurements which follow the healing of burnt surfaces call for especial remark before quitting the subject of burns. I informed you that the cause of such disfigurements was the tendency of the cicatrix to draw the opposite parts of the burn towards a centre. I also warned you of the propriety of estimating this fact in the opinion which you express to the friends of the patient. You know that, from their greater mobility, the different parts of the head and face are peculiarly liable to be affected by the contraction of the cicatrix, and no position of the head has the effect of counteracting the contraction. It is frequently the case that the eyelids, mouth, and lips are turned out in a most disgusting manner, and, what is worse, the surgeon is able to do very little effectually to prevent these consequences. Bandages, splints, or, indeed, any mechanical contrivances whatsoever, are utterly useless. You may indeed sometimes do a little good by placing straps of adhesive plaster so as to draw the skin in the opposite direction of the contraction. Such is the plan recommended by Dupuytren. Another plan is, to freely apply the nitrate of silver to the granulations, and thus to expedite the healing of the burn as much as possible. But, if the burn be on the neck or limbs, much may be accomplished by mechanical means, applied so as to fix the head or limb in a position contrary to that to which it is the tendency of the contraction to draw it. Supposing that the burn be on the forearm and near to the joint, there would be almost a certainty of anchylosis taking place, if measures were not taken to prevent it; but if you fix the arm in an extended position, by means of boards, from the time when the eschars have separated to its healing, the cicatrix cannot diminish in the long axis but transversely, and permanent flexion of the arm will be prevented. The use of mechanical means must be continued for a long while, at least for the space of two months. You may, however, and should, take off the boards from time to time, and have recourse to passive motion at the end of the first three weeks. By passive motion in surgery is meant the moving of a patient's joint by another person, and it is intended to prevent that stiffness of joint from taking place, which is the result of some tendency in the part or in its neighbourhood. After burns of the face, the nostrils sometimes close up entirely or partially by contraction, and become impervious; you must then make an opening if the obliteration is complete, or enlarge the aperture if it is merely contracted, and into the opening insert a tent or ivory tube, of much greater diameter than the natural orifice, which must be worn until the contraction has ceased. When two opposite burnt surfaces come in contact, a connection takes place of the nature of a web, and the parts become permanently united. In dividing these uniting substances, care will be necessary, or they will grow together again. I have seen this occur repeatedly, and the want of success has arisen from neglect of one particular principle. They must not only be divided and kept apart by means of lint, but pressure must be made and maintained at the angle of union, in which a small dossil of lint must be placed, and, the whole being covered with adhesive plaster, no further union will take place.

CLINICAL OBSERVATIONS ON SOME OF THE MORE FREQUENT DISEASES OF CHILDREN.

By W. HUGHES WILLSHIRE, M.D. (Edin.), M.B.S., Physician to the Royal Infirmary for Children, &c.

(Continued from p. 131.)

GENTLEMEN,—I have now to explain to you those anatomical changes which are observed in infants and young children after death, from severe forms of uncomplicated diarrhœa. You will remember I said that in the *catarrhal* varieties, although no *appreciable* change existed, yet we might, with great probability towards the truth, suppose that a change of some kind occurred in the mucous crypts and follicles, by which they were made to pour out a more or less altered kind, and greater quantity, of their usual secretions. In the form of diarrhœa at present before us, the first appreciable change which occurs is but an exaggeration, if I may so call it, of the former in the same structures, viz., *hypertrophy of the mucous follicles of the large intestine;* the second is *inflammation* of them; and the third is their *ulceration*. Conjoined with the latter is observed extension of the inflammatory and ulcerative action to the mucous coat itself of the larger bowel, with more or less similar involvement of the proximate extremity of the smaller one. These, in few words, indicate to you the essentials of the lesional changes seen in the inflammatory diarrhœa we have been talking of; the others, and subsidiary ones, you will learn immediately.

I shall first detail to you the amount of my own observations, and then add to it something from the minute morbid anatomists of France, the more especially as some of the latter have paid particular attention to our present subject. I must again impress upon you that we are speaking alone of uncomplicated diarrhœa, not of it as associated with any other disorder, or with the muco-enteritis of older children.

On opening the abdomen you will find the peritoneum and its cavity normal. In one case I have seen a very slight amount of serosity in the latter. The intestines look very pale externally. On separating them, in one class of cases, you will be struck with the great thickening and straitening of the colon, so that it will often feel as if the calibre of its tube had diminished or contracted on itself, and its hollow become filled up with new matter, giving quite a cord-like appearance to this portion of the larger bowel. This was very remarkable in a case which Mr. Delves, the house-surgeon, and myself, examined a few weeks ago. Bouchut, in alluding to this point, remarks that the transformations which ensue in the submucous cellular tissue take place at the moment when the spasm of the muscular coat diminishes the calibre of the intestine. From this results an inextensible envelope around a contracted organ—an envelope which compresses the viscera with force, and prevents its assuming its original volume.

On slitting up the intestines you will find the mucous lining of the smaller one very pale, often without any appreciable change in it until within half a dozen inches or so of the ileo-cœcal valve, where you will observe slight vascularity commencing, which increases in intensity as you get nearer the valve. Now and then you will find hypertrophy of the isolated follicles, and in rarer cases near the valve, ulceration of them. Bouchut and Legendre deny the occurrence of the latter; but it certainly existed in a case I lately examined along with Mr. Delves. Now and then you will find the glands of Peyer largely developed. It is on passing into the colon that you will be most struck with the anatomical changes which have occurred. In the upper part of it you will observe the internal face of the mucous lining highly injected, very vascular, sometimes all over blood red; if you hold it up and look at it obliquely against the light, you will see the little hypertrophied follicles rising up and throwing their shadows towards you; if you pass your finger delicately over them you will experience a sensation as produced by granulations. On looking down upon the face of the mucous lining you will notice here and there irregular spots where the vascularity I alluded to is wanting, spots having something of a greyish colour; hold the membrane up to the window, and view these spots or patches by transmitted light instead of reflected, and then you will perceive that they are small oval ulcerations. As you proceed lower down the great intestine, the vascularity diminishes, but here and there a long bundle of vessels is plainly seen expanding at its extremity into a sort of network, close upon which is to be found a small oval ulceration. Scattered over the lower bowel, more or less close and abundant, more or less evident, as the case may be, will be observed the very much enlarged greyish-yellow follicles, having a dark spot in their centre. Here and there, too, will be found a patch of ulceration.

In another class of cases you will not discover the great vascularity of the colon of which I have been speaking, but will notice that in the contracted and thickened bowel, the mucous lining forms a number of folds, along the sides of which exist bundles of vessels, with expanding extremities at the top of these folds, as if there most inflammation had existed. In the spaces between these folds are to be found enlarged follicles and small oval ulcerations, which latter, as in the former case, are formed at the expense of the follicles. In the rectum, which is pale, you will find the hypertrophied follicles with the dark central spot. Both these forms of the disorder I have seen within the last few weeks at the infirmary.

In some instances you will find, as an accidental complication, invagination of the small intestine. Mr. Delves will recollect that we found this change beautifully exemplified in the child we examined in Holland-street. I made these notes on the case:—Intestines pale; four invaginations of small intestine, the first at the beginning of the ileum, the second six inches from it, the third three inches from the second, the fourth about four inches from the third; edges of valvulæ conniventes considerably inflamed, and both external and internal inflammation at the invaginated portions; then the intestine pale until within a short distance from the cœcum, where

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vascular patches are observed; in the large intestine hypertrophied follicles exist, here and there ulcerated in lower part of colon, where there is some inflammation; glands of mesentery hypertrophied; calculus in infundibulum of left kidney. Much vomiting before death; no sustenance taken for several days. The only other intestinal change which I have observed has been now and then thickening and softening of the mucous lining.

I shall now tell you what some others say upon the subject. Bouchut remarks that the cellular tissue separating the muscular and mucous coats rarely participates in the anatomical modification of the acute form of entero-colitis. In the chronic its texture is always modified. The change is, however, limited to induration, the tissue becoming semi-transparent and inextensible. The alterations of the muscular coat are very slight, almost confined to the retraction I before alluded to. In a very few cases Bouchut has observed thickening of the subperitoneal cellular tissue. In the small intestines, extending through their whole length. in two cases this writer found coloration and tumefaction of the mucous lining, with hypertrophy of the muciparous crypts and enlargement of the glands of Peyer. M. Legendre puts more stress on the change which these glands undergo than other writers do.

In some cases of entero-colitis you will find softening of the mucous coat of the stomach; and in many works you will find described gelatiniform or pultaceous ramollissement of this viscus as a distinct disease following upon inflammation, and the disorder hence denominated gastro-enteritis, the symptom of vomiting and gastric instability which existed being alone presumed sufficient to indicate such affection. I shall not enter into the discussion of the question, but will refer you to Bouchut ("Maladies des Nouveaux Nés," &c.), who, however, I may remark, maintains that this softening of the gastric mucous lining is not a special malady, because—1. The presumed pathological alterations are but the result of decomposition; 2. Because this lining is easily dissolved by the acids of the stomach, very abundant in certain affections like phthisis, entero-colitis, &c.; 3. Because observation shows that this softening never exists alone, but, on the contrary, is always connected with other alterations, and which are its causes.

M. Braconnot has shown that in the healthy state the liver always contains a very small amount of fatty matter. Louis and others have demonstrated that, in France especially, this is much increased in cases of pulmonary tuberculosis; whilst Rilliet and Barthez have proved that the increase is now and then met with in children not tuberculous. But M. Legendre has gone further, and says, that in fourteen cases out of twenty-eight of diarrhœa he has observed this fatty degeneration of the liver. This degeneration in its evident state is more especially observed when the diarrhœa has been of long continuance.

In some cases you will find the mesenteric glands enlarged, they having become secondarily affected when the diarrhœa has been of long standing. In those cases, of course, in which they are very early enlarged and tuberculous, the disorder has been one of an entirely different character.

I shall conclude what I have to say on the *post-mortem* appearance of inflammatory diarrhœa with the following remarks from Legendre. Under the head of "general, but superficial inflammation of the mucous lining," he says, "All these characters, redness, thickening, and softening, indicate that in such cases the mucous lining is inflamed; in all cases also this inflammation is more remarkable for its extent than for its intensity, and does not sufficiently explain the obstinate persistency of the diarrhœa. This circumstance leads us to believe that here the anatomical change is the *effect*, and not the cause, of the continuance of the diarrhœa.'

I have now to consider the more *general causes* of diarrhœa. I have already told you that the idiopathic diarrhœas, if I may so call them, are chiefly met with in the earlier period of our existence, and we may say from six months until about two years of age is the period in which they are most frequently seen. In the earlier epochs of our life the constitution, you know, is very liable to suffer from the effects of circumstances, which at later periods either do not all so affect it, or do so in a different manner. Thus, during the first stage of existence, the delicate and sensitive lining of the digestive apparatus is at once excited and put out of order by any variation from the normal state of the mild and demulcent fluid—the mother's milk; and, if such variation long continue, the general vital powers are soon knocked down. So, too, after the infant has ceased to depend upon this fluid and draws from other sources new material to repair the wear and tear of the body, and to build up and help in the formation of new organs and parts; if the nature of such material be bad, so do the digestive apparatus, and then the constitution, suffer accordingly.

In early infancy the preservation of the due degree of animal heat is with difficulty kept up, save with great care and attention on the part of the mother, and a very modified amount of depressing causes, in comparison with that necessary to produce mischief in after years, will give what is called "cold" to the external portion of the body; and then the comparatively highly-developed capillary system and mesh-work of the cellular tissue of the internal organs in children at once evince engorgement, if not inflammation. (a)

It is at this period of life, too, that one of the most important evolutions of new parts ensues: an evolution which is to influence the whole future life of the child, in the developing of parts which are intimately linked with already evolved though distant ones. I allude to the evolution of the teeth, the most important of the preparative digestive structures.

The body in early life is also subject to a series of hidden powers, intangible, unappreciable to us, but yet exercising the most universal and remarkable domination over infantile and youthful existence—a domination which diminishes its energetic influence, the more advanced the progression of the individual on the pathway of humanity. What these *powers* are I cannot tell you, but, when I mention the evidences of their existence, they will then be familiar enough. Call to mind hooping-cough, measles, chicken-pox, and scarlatina, and you will reason on them at once. As we suppose that the propagation and epidemic evolution of these affections are much influenced by a peculiar condition of the air, so do we imagine that the diarrhœa to which, at certain seasons of the year, the young child is liable, has for its cause some such powers too.

It is also the youthful body which in certain countries or particular tracts of districts is so liable to engender within itself parasitical growths; and of these, those that have their birthplace in the intestinal canal, influence most importantly the various functions of the body.

To one or other of the causes which may be classed under the influences I have just alluded to, are to be ascribed the various forms of infantile diarrhœa. These causes may be, in few words, expressed by bad food, the application of cold and damp, difficult dentition, atmospheric changes, worms. Of each of these causes of diarrhœa I shall say a few words in detail.

The influence of improper nourishment in causing diarrhœa in children at the breast, and in those who are just weaned, is to be constantly found in force; and you will often find it one of the most difficult sources of the disorder to remove, either on account of the obstinacy of the parent, or her inability to procure for her infant more fit and proper food. An infant may be subjected to this cause of manifold disorder either from the milk of the mother not being of due nature and kind, or from her *feeding* it with vegetable aliments too soon, or whilst it is yet at the breast. So, too, after it is weaned, the diet not being of the right kind, either as to quality or quantity, will induce the disordered condition alluded to; and nothing more readily also than bringing up a child by hand, as it is termed.

An alteration of the maternal fluid, rendering it unfit for the child, and productive of intestinal disorder, may ensue from various causes; and such alteration may be permanent, by which the child's health is slowly but gradually undermined; or quite temporary, but yet of so marked a character that a fatal result shall happen to the infant soon after its removal from the breast. Nothing is more common than to see amongst the poor an infant gradually pining away, afflicted with exhausting diarrhœa, is kept at the flaccid, half-empty breast of its destitute mother, who, perhaps, is either menstruating or affected with profuse leucorrhœa, or is even pregnant. The child is constantly sucking, but gets neither in quantity nor quality that which it should have. The milk is slight in quantity and serous in quality. The child, in fact, has nothing to live upon, nor has had for a long while. In cases of sudden temporary alteration of the milk, the change is generally brought about by some intense mental emotion on the mother's part, and the modified secretion acts detrimentally on the nervous system of the child; although in other cases the administration of particular drugs, or the occurrence of some disorder on the part of the mother, adduces a temporary effect, though not a fatal one, on the child. Bouchut quotes a case in which a woman, witnessing a quarrel between her husband and a soldier, saw the latter draw his sword upon him, and to whose rescue she went. Afterwards she put her child, who was healthy and eleven months old, to her breast, who, after sucking but for a short time, quitted it in a state of agitation, and died in a few moments. The same author remarks that a lascivious young mother sent her child into violent convulsions if she nursed it after indulging in the performance of the connubial right. I myself have seen a mother so affected for the safety of her child, who was labouring under diarrhœa, that on placing the child at the breast, it went into convulsions. Such facts as these and many others I could mention to you, will be sufficient to prove how readily a child may be affected by changes in the milk it consumes, whether by constitutional weakness or disorder on the part of the mother, mental emotions, or the ingestion by the parent of drugs, particular articles of diet, &c. &c.

(a) See the observations of M. Bery, Physician to the Stockholm Asylum for Orphans.

ORIGINAL CONTRIBUTIONS.

DR. RIGBY ON CHLOROFORM.

I tried the effects of chloroform, in a case of labour, last week, and take the liberty of communicating them to you, in the hope that they will not be uninteresting to your readers.

Mrs. A., aged about twenty-three; primipara; brunette, small, but well made. Has carefully attended to the state of her bowels for some weeks. Slight pains commenced on the morning of the 2nd, but were very trifling until the afternoon, when they became stronger; the os uteri was two-thirds dilated at about six P.M. No liquor amnii had collected. A large head was presenting, but I did not ascertain its precise position, as the vagina was remarkably small, and the patient rather nervous and excitable. As the pains were not satisfactory, being a good deal in front, and as she now owned that during the previous twenty-four hours the bowels had not been so well relieved as usual, I directed the nurse to give her an enema of warm water; it brought away little or nothing, but the pains instantly altered their character, and pursued a bearing-down character, the os uter being now fully dilated.

As the head approached the os externum the pains became powerful, and she expressed much

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dread of their recurrence. The perineum was now considerably distended by the head during a pain, and the labia somewhat separated by it. A sponge, with fifty or sixty drops of Hooper's chloroform, was applied to the nose with a pocket-handkerchief, and she was almost immediately under its influence. Up to this moment the head, even during the most complete interval between the pains, had not receded to any considerable extent, but the moment she was insensible the head receded further than I have ever noticed before, all detruding pressure upon the child, whether from the uterus or abdominal muscles, having ceased. The pains up to this moment had recurred every two or three minutes, but now there was an entire cessation for nearly ten minutes; when, however, pain came on, it seemed as powerful as before, and I decidedly think that the parts did not present so much resistance; they seemed more soft and flaccid, almost as they are known to be in syncope from severe hemorrhage. Consciousness returned, as from a deep sleep, and she begged to have it repeated, which was done, and, as she gradually lapsed again into deep sopor, she murmured faintly, "It is *so* delicious." The pains returned at the same long intervals, and in about an hour the child was born, the chloroform having been renewed occasionally. She was slightly sensible from time to time, but seemed to suffer little, and fancied that she had been but a few minutes under the influence of the chloroform. I am aware that an opinion given on a single trial of this remarkable agent must be taken with caution, but every person present, with myself, felt convinced that but for it the child would have been born late on the evening of the 2nd, instead of at a quarter past twelve, and therefore just into the morning of the 3rd instant. There can be no doubt that, besides allaying pain in obstetric operations, the perfect flaccidity and relaxation which it produces in the soft parts will prove of considerable service.

Dec. 7.

FIRST CASES OF CHLOROFORM IN IRISH OBSTETRIC PRACTICE.

By THOMAS R. MITCHELL, M.D., F.R.C.S.I., Master of the South-Eastern Lying-in Hospital, and Lecturer on Midwifery in the Dublin School of Medicine.

Case 1.—Julia Denning, aged thirty, admitted into the South-Eastern Lying-in Hospital, Nov. 30. Has had one child; never miscarried; but had rather a tedious labour the last time; has been in pain the last two nights, which come on at regular intervals of about half an hour. She is up to her full time. About five o'clock this morning she first observed blood flowing from the vagina, which has continued until this time (ten o'clock); stomach was sick a short time ago, but is not at present; pains are more frequent, coming on every quarter of an hour. Os uteri is dilated to about the size of half a crown, very soft, and dilatable; head presenting in the first position. I ruptured the membranes at ten minutes past eleven. Pulse full and strong, 80. Administration of chloroform began twenty-five minutes after eleven; became insensible in less than two minutes; pulse 72, full; the effect lasted about a minute and a half. Inhaled again, and became very violent, calling out loud. In about a minute began to talk incoherently, in a lower tone, asking the nurse to come and speak to her. Shortly after this she felt a pain, and cried out loudly. Inspired the chloroform again, and it had the same effect as before, making her violently delirious, but for a shorter time. Quarter to twelve, the child's head is beginning to press on the perineum; she is quite insensible, raving most violently; two minutes after this the child was born. Still has pains at intervals; no pain in the head; still raving at times; placenta in the vagina, extracted.

CHLOROFORM USED SUCCESSFULLY—FORCEPS REQUIRED—CHILD SAVED.

Case 2.—Catherine Cook, 18, Sandwith-lane, an extern patient at the South-Eastern Lying-in Hospital, aged 40, mother of six children, was seized with labour on the night of Dec. 2; the membranes ruptured at six A.M. of Dec. 3, and I saw her at 10 A.M. The following was her condition:—The pains were brisk, and recurred at intervals of about ten minutes; on examination, per vagina, the anterior lip of the uterus was found occupying the whole front part of the vagina, which was dilated, and very soft, cool, and moist; the child's head presented in the first position; the bowels had been recently evacuated, and the bladder emptied; the pulse was full and strong, 86 in the minute. She had always had severe labours in her previous confinements; the pains were very distressing, and caused her to shriek out with agony. Judging it a good case for the exhibition of chloroform, assisted by my very intelligent pupil, Mr. Cummins, I proceeded to put her under its influence. After sixteen inspirations she went off in a quiet doze, in which state she continued three minutes, and on her showing signs of sensibility the sponge was again applied to the mouth and nose, during which time she had a severe pain, which she bore without the slightest symptom of suffering; her arms lay tranquil and relaxed, and were insensible to pain on being pinched; her pulse now increased in frequency to 100, but weakened. On the third application of the sponge she became very excited, attempted to sit up in the bed, and talked incoherently in a rather loud voice; this state of excitement lasted for about half a minute, when she went off to sleep again. The pains now recurred every five minutes, and the sponge was applied at the commencement of each pain; she was allowed to make six or eight inspirations at a time; during the intervals the sponge was removed, and she continued in a placid sleep, not having experienced any excitement, with the exception of the one above mentioned, and a second slight one, which was very evanescent. During the time her mind occasionally wandered, and under its influence her pulse mounted to 100.

REMARKS.

From the degree of excitement produced in the first case, I should (judging from it alone) be induced to say that the chloroform was by no means fitted for obstetric practice; but I do not think it would be fair to draw such a conclusion, as there were circumstances which rendered the application doubtful. In the first place, the woman had lost a good deal of blood, and the chloroform acted in a similar manner to spirits in producing delirium tremens; secondly, she was much excited, being surrounded by a large number of pupils, some of whom asked her questions—conditions which Professor Simpson holds to be injurious. In the second case the success was perfect; the woman was kept very quiet, and perfect stillness observed.

I have given it to several persons in health, in some of whom it also produced much excitement; in one pupil a state of hysteria was induced, and I am of opinion that much depends upon the rapidity with which a person is brought under its influence, as well as the quality of the fluid used. What I employed was very good, and procured from Mr. Hooper, of London. At the Surgical Society of Ireland, on Saturday night last, Dr. Byrne, of Dublin, suggested the heating of the sponge, and also placing it, when heated, in a hot towel prior to its application, by which means the fluid was more quickly vaporized; he stated that he had succeeded with great rapidity by this method. From the hint thus given, I have directed a respirator to be made, which, I think, will possess many advantages over the present simple method, but, until its utility be tested, will not say more about it.

I cannot conclude these remarks without acknowledging the debt of gratitude that the profession and public owe to Professor Simpson for this most valuable discovery, and, although the cases now published are the first in which the remedy has been tried in Ireland, I am determined that they shall not be the last.

University of London.—The gold medal for a commentary on a case in medicine was last week awarded to Dr. Redfern, of Aberdeen.

THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

By GEORGE CORFE (Author of "A Popular Treatise on the Kidney," &c.), of the Middlesex Hospital.

[Illustrated by Portraits of Cases.] (a)

(Continued from page 114.)

DELIRIUM IN FEVER.

It occasionally happens that a poor fellow is brought here by some friends or lodgers from a low and dirty neighbourhood, who have found him so destitute, ill, and filthy, that they have willingly defrayed the expenses of his carriage here, in order to get "the fever" out of the house. They know nothing of his history, or of the symptoms and duration of his illness; that difficulty is left for us to surmount. The patient is insensible; the countenance stupid and dusky; pupils dilated; eyes closed; skin hot; and pulse rapid. Who can pronounce an accurate diagnosis in such an emergency, so as to lay down a distinct line of treatment?

He is placed in a warm bath and well washed, his head is shaved, and he then has a clean pair of sheets and a freely-ventilated ward to breathe in. A dose of calomel with some purgative is administered, and cold lotion is applied to the shaved head; he is made to swallow a little beef-tea from time to time, and thus he passes the first twenty-four hours, perhaps. The disease now begins to develop itself. Delirium, more or less severe, sets in, with intervals of rationality; the tongue is seen to be transversely fissured, red, and raw; the eyes become flushed; the pulse regains some strength; sordes appear about the lips; the skin is sprinkled with a few papular eruptions, and we soon are enabled to decide that it is "simple continued fever," accompanied with severe head symptoms; and thus the case progresses favourably under very mild treatment, good nursing, and watchfulness, without any severe measures on our parts.

Whereas, I regret to state, that many are the instances where the same condition has existed, and a medical man has been called in (a novice in the treatment of the low form of fever of London and other large towns), and has thought proper to tie up his patient's arm, take away a pint or more of blood, and then send him to the hospital, without, perhaps, prescribing a grain of medicine; and I need not add that such cases have usually terminated fatally in a few days. The bleeding, as we have been subsequently told, was performed on account of the cerebral symptoms, but the patient having no one to nurse him, it was deemed more prudent to send him to an hospital. Alas! I would there were but a few of such sad instances of malpractice. Let the following serve as a sample:—

Christiana Smith, aged eighteen, a servant, admitted Aug. 8. Countenance wild and flushed; eyes projecting and suffused; lips dry and covered with a viscid mucous; head very hot, as is also the whole body, which is covered with a rubeoloid eruption; occasionally screaming and talking incoherently, but answers all our questions in a rational manner; pulse 120, and very feeble, undulating; tongue ruddy and dry in the centre; abdomen full, but bears pressure; bowels relaxed; does not acknowledge that she is in any pain. This attack set in six days ago, with rigors and heats alternating; and a doctor was called in, who bled her to thirty ounces, and in a few days afterwards sent her to the hospital. Surely I need scarcely inform my readers that the poor girl lingered on in the hospital, and sunk in a few days more.

DELIRIUM FROM PNEUMONIA.

There is no form of disease to which the human frame is liable in the investigation of which the valuable aid of consultation is more manifest, more satisfactory, and more instructive

(a) These portraits, which are painted from the life, by that eminent artist, George Foggo, Esq., are to be seen in the museum of the Middlesex Hospital School of Medicine, a woodcut being deemed inefficient to carry out the peculiar features and tint of each countenance.

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than in pneumonia. There is no form of inflammation either, which, if improperly treated at the onset, or overlooked in its progress, is so destructive of life and so rapid in its various stages as that of pneumonia. A clear and accurate diagnosis is of the utmost importance here. A few hours lost will oftentimes bring the patients into the jaws of death. If there was no other consideration why auscultation should be publicly taught in the schools, the rapid progress of this fearful disease, and the deceitful symptoms that it often presents to a practitioner, are sufficient grounds for earnestly pressing upon pupils the importance of the study of this branch of medical practice.

I cannot instance my remarks better than by describing a case amongst many that occurred here. A strong-built German baker, John Trenter, aged twenty-six, was admitted as a case of fever, November 30, as the medical man so termed it; and as he was delirious, and they had no means of keeping watch over him, he was accordingly sent to us. When we had got him fairly into bed, which was done with no small difficulty, I observed his face was flushed; conjunctivæ injected; a wild, anxious, but inexpressive eye; some delineation of uneasiness in the contraction of the features; skin hot; pulse full, but oppressed.

We ordered his head to be shaved, and cold lotion was applied to the forehead; but I was soon summoned to the ward, for the nurse had no power over him; he was jumping over the beds like an excited patient with delirium tremens. There was no cough and no expectoration. I got him to bed with firm language and an authoritative tone, and immediately strapped him down; he looked like a man, at this period, with phrenitis, and I was loth to bleed him from the head, knowing, by experience, how ill bakers and such like artisans bear lowering by bloodletting, &c. Still our minds were set upon the supposition of its being fever, with severe cerebral congestion.

We left him for the night, and, on the following morning, when I made my usual visit, the man was more tranquil, though he had had but little sleep. As I stood questioning him as to his symptoms, he suddenly was stopped by a tight and harsh, but short, cough. Immediately I set him up in bed, and, on putting my ear over the chest behind, found extensive bronchophony; tubular, or bronchial breathing, very general; small crepitation, and total dulness on percussion. Now, the whole case was made clear to my mind. "Acute and violent pneumonia, which had run into the second stage of red hepatization," and the whole lung was in a fair way of being solidified, probably to the patient's destruction. I tied up his arm; the pulse was weak, but then it was so from oppression, carbonised blood circulating to such an extent that his system was, it may be said, poisoned with it. I allowed the blood to flow *pleno rivo*; the pulse rose, and when he had lost thirty ounces he fell flat on his back, burst out into a profuse sweat, and there I left him. Soon afterwards he took half a grain of tartar emetic, and continued it every half hour until he was thoroughly nauseated, and then he continued it at longer intervals, with three grains of calomel. He was cupped freely over the inflamed lung; and in one week the patient was convalescing, the lung rapidly regained its permeability, and vesicular breathing was heard throughout it before he left the hospital to resume his work.

The physiognomy of such cases as those I have now related is sometimes very marked. In delirium from fever there is a dusky, heavy, and expressionless countenance; the eyes are half closed, and, as the patient lies in bed, he rarely lifts his lids upward, so as to look at the individual who is interrogating him about his sufferings. Whilst in the severer form of delirium from pneumonia, there may be flushed eye and face, and, what I have so frequently noticed in London, an herpetic eruption over the lips; an excited manner, but a dulness in comprehending your questions; and you find a difficulty in obtaining clear or satisfactory answers to your inquiries about his sufferings, history, &c.

I am anxious to present to the minds of my readers a distinct group of instances of cerebral disturbance, arising from acute disease in other organs, in as trite a manner as possible, in order that the assimilative characters of these diseases may be fully estimated, whilst the observing eye of a practical man will readily notice the various phases of these characters as they are severally laid before him.

Delirium from pericarditis, therefore, must next come under our observation, since this disease is oftentimes attended with no other marked symptoms, except fierce delirium; and this feature is frequently so great, or so prominent, that the practitioner is incautiously led astray from the consideration of the real disease, to the organ which is sympathetically affected by the inflammation, rather than to the inflamed organ itself. The subjoined case may serve to illustrate my meaning, perhaps, in few words.

Elizabeth Plumbe, aged seventeen, admitted Jan. 5; maid of all work. Pains and swellings of all the larger joints; tongue furred; pulse full; catamenia due a fortnight ago. Just at this period she was seized with weakness and inability to work, and her pains and swellings gradually arose; there was no cardiac disturbance. She was going on favourably under the influence of colchicum until the evening of the 9th, when she was found propped up in bed. Countenance wan and very anxious, and, if asked a question, she looks at you with a vacant stare, smiles, and then turns her head away, and gives some evasive answer, and not in the sharp, ready manner which she did on her admission. There is (says the note) a very peculiar, and rather pleasing, idiotic cast of features (risus sardonicus); she is very low-spirited, often fixing her eyes on the ceiling, and lying for the most part on the right side. The nurse states that she has got out of bed three or four times under pretence of wishing to pass her water, but that she has not done so when placed on the night-chair. A distinct attrition sound was heard over the base of the heart, and subsequently a bellows, mitral, murmur over the left scapula.

The case terminated fatally on the 31st of March, and there were found at the autopsy evident traces of recent acute pericarditis and endo-carditis.

In very many of such insidious attacks of rheumatic carditis, there is no complaint made of pain in the præcoridal region, either by pressure in the epigastrium or on a deep inspiration; and this fact, without the aid of auscultation, necessarily renders the case more obscure and perplexing to the practitioner, who is not conversant with the morbid sounds elicited by the heart, under this acute inflammation.

In another instance of acute pericarditis which terminated fatally on the female side of the hospital, the patient, forty years of age, was admitted for mere disorder of the digestive organs, when I was hastily summoned to the ward, in consequence of the woman being in "a fit." When I arrived at the bedside I witnessed one of the most frightful series of contortions of countenance which the most horrifying form of epilepsy ever produced; and, as this train of symptoms was altogether new in the patient's history, I ordered the head to be shaved, leeches to the temples, and a smart dose of calomel, with colocynth, and an aperient draught. She rallied somewhat, but never became perfectly sensible; another fit succeeded the former, and a third, when she was carried off in the most frightful struggles of epileptic convulsions I ever witnessed.

At the *post-mortem* examination we could not trace the slightest morbid alteration in the brain or in its membranes, but the heart was covered with firm and recent coagulable lymph, and there was a large quantity of whey-like fluid in the pericardium.

In the early stages of endo-carditis I have repeatedly noticed that the first or systolic sound of the heart becomes sharp, prolonged, and loud, whilst the diastole is dull, muffled, and distant; this morbid change in the rhythm of the heart can only be attributable to a stiffened condition of the valves, which results from the early stages of inflammation, and which inflammatory action, if it continue unabated, will soon induce a puff, whiz, or murmur, and thus the unequivocal evidences of permanent valvular disease are plainly manifest. Such a damaged heart never regains its wonted elasticity and equal action; yet the patient may survive many years, especially the young, and never be sensible of dyspnœa, palpitation, or thoracic distress, until some exciting cause brings up fresh inflammatory action, and the organic changes of this once nicely-balanced engine are sensibly experienced in the sufferings of the patient.

It was observed in the course of the prefatory remarks which were made at the commencement of these papers, that the hospital practitioner is often placed under the most disadvantageous circumstances, to enable him to form a correct diagnosis of the severe cases which present themselves before him. A poor creature, as it often happens, has been labouring under an acute attack of inflammation, which has run its course even to ulceration on the one hand, or to serous effusion on the other, before he is removed from his home to be brought here. The exertion, agitation, and worry of this journey, oftentimes proves fatal to them, and the last shilling is spent to procure a conveyance to the hospital; so that when they appear before the physician of the week, there is no one to inform us of the rise and progress of the disease, and the patient is unable to do so from the exhausted state of his mental faculties, and thus are we left to conjecture upon many important points of the disease. This evil, in a great measure, springs from the difficulty these poor objects meet with in finding a friend who is willing to try and procure a letter of admission to the hospitals of the metropolis, so that delay is in such cases most dangerous and destructive to life. These things ought not to be allowed, as they tend to exclude the most deserving class of individuals from these charities, namely, those who are labouring under alarming and mortal diseases. But I would observe that the fatigue of bringing patients, labouring under some advanced form of acute disease, from a distance to the hospital, is oftentimes the means of setting up another train of symptoms, which wholly mask the original attack; thus, in the instance about to be recorded, the onset of the disease was doubtless acute inflammation and ulceration of the bowels; but the exertion of the journey here induced perforation of the intestine, and then another series of symptoms sprang up which preponderated over the former ones, and gave rise to an incorrect diagnosis. It is on this account that I would rank delirium from *enteritis* under this division of cerebral sympathies.

Elizabeth Cremen, aged twenty-eight, with an infant eleven weeks old at the breast, admitted May 15. Countenance dusky, or of a pale, livid hue; features pointed, and expressive of acute suffering; eyes half closed; pupils contracted, and scarcely sensible to light; constant delirium, and unable to describe her sufferings; and there is no one who accompanied her to the hospital who can inform us of the rise and progress of her illness. Appears to refer her pain to the abdomen, which is not tense nor full, but resents pressure. Incessantly getting out of bed, so as to require restraint; extremities cold and mottled. Under the above circumstances it was looked upon as a case of fever, with severe cerebral disturbance, and she was treated according to this supposition; but she rapidly sank and died in three days from her admission.

Post-mortem Examination Twenty Hours after Death.—Abdomen. The peritoneal cavity was filled with lymph and fæcal matter. There was acute peritonitis and enteritis. Eight or ten ulcers, varying in size from a pea to a sixpence, were found along the transverse portion of the ilium; the upper ones were in an advanced stage of reparation; the lower ones were not so. One of the

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larger ones, a foot from the cœcum, had perforated the bowel, and allowed its contents to escape. There was no ulceration on the edge of the cœcal valve, as in ordinary fever; and the transverse form of the ulcers gave them the character of tubercular excavations, rather than of those ulcerations ordinarily observed in fatal cases of fever.

Just about the same period that the above case terminated, a man, aged forty-six, was operated upon by Mr. Arnott for inguinal hernia, May 13. The case went on most favourably until the 25th, or twelve days after the operation, when I was requested by that gentleman to see the patient, in consequence of a sudden attack of delirium which had come on. He was found lying on his back, with his features pinched and sunken, his countenance dusky and livid, with a faint outline of the "facies Hippocratica"; eyes wandering about the bed wildly, but without animation or expression; incessant talking, swearing, and a determined obstinacy in refusing to answer any question, or to allow himself to be touched. The respirations were wholly thoracic. Notwithstanding repeated doses of calomel and opium, fomentations, &c. &c., he died in sixteen hours from the time of the accession of the delirium. We were fully convinced that the bowel must have given way, or else that there was acute enteritis; and so it proved to be, for at the *post-mortem* examination it was found that the stricture had gripped a portion of bowel *above* the strangulated knuckle of intestine, and this ulcer had not undergone any reparation, but it had given way; and the result was acute inflammation of the whole ilium and jejunum.

FACTS AND ARGUMENTS IN SUPPORT OF "THE HUMANE SYSTEM OF NON-RESTRAINT AND NON-SECLUSION."

By WILLIAM SMITH, M.R.C.S.E.,

Formerly House-Surgeon to the Lincoln Lunatic Asylum, Member of the Association of Medical Officers of Hospitals for the Insane.

"Nil sine magno
Vita labore dedit mortalibus."—Hor.

Observing in *Medical Times* for November 20 a letter from Dr. Nicholson, of Lincoln, reflecting upon the *non-restraint system* of treating the insane—*a system which has now been in operation at the Lincoln Asylum (without any intervallum) for more than seven years*—I trust the editor will (in a spirit of strict impartiality) allow me to offer a few practical observations thereupon.

I would, however, remark (*in limine*) that my object in writing is *not to defend the brutal treatment of insane persons by their attendants*, quasi *keepers, nor to sanction the practice of breaking four or five of their ribs during a maniacal paroxysm*—a mode of treatment which latterly (I regret to observe) has not been unfrequently practised at Lincoln, at least if we are to receive as evidence the statements contained in the *Medical Times*. My object is to show that "*the humane system of non-restraint," when carried out in a proper spirit, and with that vigilance of supervision, both on the part of the medical superintendents and the immediate attendants upon the insane, which the founders and supporters of that system have always insisted upon as necessary, is not only safe and practicable, but that it is without exception one of the greatest boons ever yet conferred upon the insane.*

The abuse of any remedy is no argument against its use. The governors of the Lincoln Asylum have truly remarked, in their Seventeenth Annual Report, page 15, "The arguments used in favour of instrumental restraint are equally cogent against the most valuable improvements in medicine, and would justify the continuation of those dreadful drastic and kill-or-cure medicines which have been long exploded by enlightened and humane practitioners, and superseded by others more mild, more safe, mor efficient, and more in harmony with the natural habit and physiology of man. . . . Restraint gives exaggerated notions and high-wrought feelings to the patient; whereas the ideas impressed should be those of quiet, orderly domestic life. . . . The very act of restraint is an admission of fear on the part of the attendant, and gives the patient an impression of the tremendous nature of his own power—a feeling which all lunatics love to indulge—and further tempts him to use that power when he can, it being a universal principle of animal instinct, and one particularly observable in the insane, to attack whatever shows fear or seems to give way. . . . There seems to be a notion that, in dispensing with instruments of restraint, the attendants are to be 'perpetually' holding the patients fast by the limbs to prevent them from moving about. Such may be the case in a private house, where proper accommodation can seldom exist, and where instrumental restraint may, therefore, become necessary; whereas, in an asylum, the bodily power of the attendant is employed solely to prevent mischief, the patient being otherwise permitted to indulge his whims and dispose of his accumulated irritability; *there is this peculiar benefit in it, that the attendant, for his own convenience, will cease from interference the first moment that it can be dispensed with.* Irritation is, perhaps, frequently and, perhaps, generally the direct exciting cause of lunacy, and any attempt at cure which involves a system of irritation must exaggerate the complaint, and, above all, that bodily confinement which prevents the patient from getting rid, by the free motion of the limbs, of his accumulated excitability, engendering a state of mind morose, rancorous, ferocious, and deadly; as was too clearly proved by the frightful scenes of assassination and outrage which habitually occurred at Bedlam and elsewhere, when restraints of the most dreadful accumulation and power which human ingenuity could devise were in constant and general use, morning, noon, and night, often for twenty years in succession, or for a whole life. Such cases are now extremely rare, and are always most frequent where coercion is most generel and severe."

According to my experience "*the humane system of non-restraint*" requires more than common vigilance upon the part of the *medical superintendent*, as well as those placed under his authority; there must be no difference of opinion: all should be actuated by one feeling, or how can we expect an institution to flourish? Turn to the past history of Lincoln and Hanwell, and see what happened. Dr. Conolly, in his valuable reports to the visiting justices, has not omitted to mention this important matter. In his Third Report, 1841, page 128, he observes "that the abolition of restraints cannot be successful without a vigilant and constant superintendence, exercised by a competent number of attendants, under the direction of officers zealously united in the determination to meet every variety of difficulty by every possible resource that may render bodily coercion unnecessary. That the attendants most attached to the use of restraints will be the least alert in carrying these resources into practice, and the most prone to use secret violence, and to abuse seclusion until it becomes as objectionable as restraint itself. That in a properly-arranged asylum, with efficient officers and attendants, acting under one uniform system, scarcely any conceivable case can occur in which the security, cleanliness, and comfort of the patients may not be provided for, and the safety of all the other patients secured, without mechanical or bodily restraint, and with fewer troublesome consequences than when restraints are employed."

Dr. Nesbitt, the experienced superintendent of the Northampton General Lunatic Asylum, adds his testimony, also, to the complete practicability of the "*non-restraint system.*" In the Sixth Annual Report of that establishment, for the year 1846, pages 2 and 3, he remarks—"On the bearings of this question, in connection with the management of the institution during the past year, and indeed during the whole period of my connection with it, it is gratifying to be able to state that there has been no faltering or compromise; such difficulties as have presented themselves have been efficiently controlled by such agents as the non-restraint system recognises, without a solitary departure. The application of a strait-waistcoat by day, or a strap at night, has also been dispensed with; and, if such contrivances there be, they are interred in the subterranean parts of the establishment, for the gratification of some future antiquarian. It is true no extraordinary cases have presented themselves, of any one obstinately bent on gouging out his eyes, of biting off his tongue, or standing on his head—cases said to be of occasional occurrence in America; but the number of actively maniacal, suicidal, and destructive patients admitted has been by no means small; and to have successfully grappled with them, without mechanical restraint, without encountering a single death by violence, or attempt at suicide, or a casualty more severe than a black eye, is no mean tribute to the efficacy of the treatment."

Dr. Conolly in his Eighth Report to the Visiting Justices of the Hanwell Asylum, Dec. 31, 1846, pages 23, 24, and 25, remarks:—

"There are still some asylums in England, Ireland, and Scotland, in which such means of restraint are employed and defended; and travellers from various parts of the Continent and from the United States of America, apparently prepossessed in favour of such ancient and forcible methods of control, continue to pay hasty visits to Hanwell, and to publish opinions condemnatory of the non-restraint system. In the annual reports of past years, when the experiment was but in an early stage of its progress, and when it was embarrassed by many difficulties, I refrained from engaging in any controversy on the subject; being satisfied that the results would furnish the best test of its being rational and judicious, as well as humane. If such results had not appeared, it would have been my duty to modify or abandon the system, as, in similar circumstances, it would have been my duty to alter or relinquish any other particular in the treatment of the patients. Now, after seven years' patient trial, during which the non-restraint system has been introduced into many other asylums, without the occurrence of any accident against which mechanical restraint would have afforded security, I do not think it desirable, more particularly, to notice the opinions of writers who have sometimes appeared to visit Hanwell more prepared to argue than disposed to observe; nor should I deem it necessary to refer to this part of treatment, if it were not that I consider it still requisite to remind those who are most anxious to adopt it, that certain conditions are essential to its being successfully maintained.

"One of the first of these is a properly constructed building, in which the patients enjoy the advantages of light and air, and a cheerful prospect and ample space for exercise, and for classification and means of occupation and recreation. The next is the constant and watchful superintendence of humane and intelligent officers, exercising free but considerate and just control over an efficient body of attendants. Other conditions are connected with such attention to the dies, clothing, lodging, and general cleanliness of the patients, as may exclude all avoidable sources of physical and mental uneasiness. Various employments, a certain extent of instruction, judicious religious attentions, and frequent opportunities of recreation, are indispensable and powerful auxiliaries. The whole treatment, management, and government of the patients and of the asylum must, in short, be primarily adapted to the cure or improvement of infirm and disordered minds and bodies, and as far removed, on the one hand, from the economy and organization of a workhouse, as, on the other, from the restrictions of a prison.

"In any public asylum constructed and conducted on these principles, and provided with proper resources against accidents incidental to all houses in which a number of insane persons are collected, the practicability and safety of the non-restraint system have now been satisfactorily proved by trials made in some of the largest of such institutions, and continued for several

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years. Every year, in such asylums, shows the possibility of removing more restrictions, and of dispensing with some of the precautions for which several measures constituted the real necessity; so that in every year the comfort and freedom of the patients admit of some further augmentation, and their condition becomes more assimilated to that of the sane, except in points for which their malady intrinsically disqualifies them; and for which an eventual remedy is sought by the indirect operation of a treatment calculated to relieve the feeble from responsibilities they are unable to perform, and all the unavoidable excitements of social life which the morbidly irritable brain cannot endure."

These extracts having reached to an unexpected length, I am compelled to postpone the concluding part, in which I shall enter more minutely into Dr. Nicholson's charges.

King-street, Belper, Wednesday, Dec. 8.

(To be continued.)

SPASMA GLOTTIDIS.

By THOMAS BROWN, Esq., M.B.C.S., Castle Donnington.

On the 1st of Nov., nine A.M., a breathless messenger requested my immediate attendance on Miss H., Borough street, in this town. I found my patient (a young lady, aged twenty-four, strongly built and full of flesh), gasping for breath, supported in the sitting posture by two females, whose arms she convulsively grasped; her face was tumefied and livid, the countenance anxious, the vessels of the neck turgid, and the carotid artery throbbing violently; pulse 84, full and bounding; inspiration hissing, voice hoarse and weak, and her answers to my questions hurried; sounds in the chest normal, save the evidence of increased vascular action; some slight dyspnœa and hoarseness had been perceived a few days, but the orthopnœa had only manifested itself within the last few hours. Venæ sectio ad ℥xx., which was tolerated. Appl. hirudine viij. gutturi.

℞. Hyd. chloridi, gr. viij.; pulv. Doveri, gr. x. M. ft. pulv. stat. sumend. Antimonii potassio tartrat, gr. viij.; tr. camphoræ comp., ʒij.; mist. camphoræ, ℥vj. M. ft. mist. cap. coch. Mag l, secund. quaq. hora.

Eleven A.M. Symptoms continue urgent, but less imminent. Appl. empl. lyttæ nuchæ ex aure ad aurem.

Four P.M. Symptoms much relieved; there still remains distressing dyspnœa, but the patient is enabled to recline on the bed supported by pillows; the blister is beginning to act; bowels acted upon twice by the calomel.

2. Passed a restless night; perspired profusely; dyspnœa milder; pulse 70; evident depression from remedies; no vomiting or nausea; tongue furred; bowels sluggish.

℞. Hyd. chloridi, gr. x.; pulv. rhei, ℈j. M. ft. pulv. s.s. Postea horas duas hab. Pot. tart., ʒij.; pot. sulph., ʒj.; tr. jalapæ, ʒij.; infus. sennæ, ℥jss. ft. haust.

3. Slight dyspnœa remains; complains of feeling very feeble and having a metallic taste in her mouth; bowels well acted upon.

℞. Pot. nitratis, ʒij.; tr. myrrhæ, ℥iv.; inf. rosæ, ℥vj. ft. gargarisma sæpe utend. Continue the mixture every four hours.

4. No dyspnœa; in other respects progressing to convalescence. Oint. ant. pot. tart.

℞. Decoct. cinchonæ, ℥viij.; sp. lavend. co., ʒiv. M. cap. coch. duo mag ter die. Pil. aloes co. myrrhæ, gr. viij. bis in die.

6. Miss H. was able to remove to her home in the country, ten miles distant, and has remained free from disease since.

CASE IN WHICH NUMEROUS LUMBRICI WERE EXPELLED FROM THE INTESTINES.

Communicated by H. HASTINGS, M.R.C.S. and L.A.C., Stokeschurch.

On the 13th ult. I was called upon, at one o'clock in the morning, to attend B. Barney, aged thirty-eight years, who was represented to me as dying. When I arrived I found him suffering most excruciating pain; his countenance expressive of the greatest anxiety and suffering; eyes fixed; tongue white; thirst excessive; pulse 108; bowels constipated; urine scanty, and highly coloured. He lay upon his back; his knees drawn up; abdomen very tender to the touch, exceedingly painful, and hard; skin hot and very rough.

Upon inquiring into the case, I found that he had had, previously, slight attacks, but not so severe as to prevent him following his work (labouring). I ordered fomentations to the bowels; gave him chlorid. hyd. gr. iv. statim sumend, and, in two hours after, haust. cathart. ℥jss. In the morning the bowels were freely moved and appeared alimy; pain rather easier, but fever little abated. Ordered him a diaphoretic mixture. Next day pain as aggravated as at first; bowels in the interim not opened; former pulv. et haustus repeated, and fomentations continued. About three o'clock, same day, passed all at once forty-five lumbrici; in the evening much better. Twelve o'clock P.M., again passed thirty more lumbrici, and next day five more, thus making in all eighty! measuring ninety feet!

Oct. 24. Patient recovering rapidly. Complains of nothing save being at night annoyed with unpleasant dreams, fancying that he is lying among heaps of worms.

I am aware that a great deal of talent, ingenuity, and research have been exercised by both ancient and modern pathologists as to the theory of intestinal worms, but, so far as I know, nothing has yet been definitely agreed upon. Therefore, I shall forbear any observations thereon. But I cannot omit to make some remarks upon the curious train of symptoms which presented themselves in this case, and the therapeutic agents which were found effectual. I must confess that, from the symptoms, I was not a little puzzled to determine whether I should have recourse to bloodletting, as they presented to me something analogous to peritoneal inflammation. But the patient appeared to be anything but strong and healthy, *ergo*, I did not use the lancet. Perhaps, from the symptoms, some may be ready to question this; but my opinion is, the less we use the lancet in doubtful cases, so much the better. This case has certainly struck me forcibly, and has showed me how very cautious medical men ought to be in first thoroughly examining every ambiguous case, before forming a diagnosis, and pursuing a treatment accordingly. I think that in all such cases we ought to give the *vis medicatrix naturæ* the preference to the *vis medicatrix medicinæ*. In this case I fancy that the former had a considerable influence.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meetings of Nov. 29; M. Brongniart in the Chair.

Chloroform.—M. Gerdy communicated the results of his experiments on the new anæsthetic agent. M. Gerdy was of opinion that the inhalation of this substance should be performed with an instrument, because the contact of chloroform with the skin and lips often produced excoriations. In his experiments, as in those of Professor Simpson, unconsciousness was obtained more rapidly than by the use of ether. M. Amussat had also arrived at the same conclusion; but he had further remarked, in animals and in man, that chloroform, like ether, caused the arterial blood to assume a dark colour, and to resemble closely venous blood. M. Charrière presented to the academy for its approbation an inhaler which he had constructed for the exhibition of chloroform.

ACADEMY OF MEDICINE.

Meetings of Nov. 27 *and* 30; M. Begin in the Chair.

Lithotrity.—M. Roux again addressed the academy on this question; and M. Bouillaud remarked that the society was fairly tired of the discussion of a subject from which there seemed nothing to be expected. On the motion of M. Marjolin, the debate was closed.

Chloroform.—Dr. Philippe, surgeon of the hospital of Rheims; Dr. Sandras, of the Hôpital Beaujon; and M. Delabane, a dentist, forwarded an account of their experiments on this substance. They had all been successful.

Albuminous Urine after the Application of Blisters.—M. Bouillaud communicated to the academy another case in which the urine became albuminous after the application of a blister. The patient having died, the bladder and ureters were found to be lined with false membranes.

Angina Pectoris.

The following case, with the anatomical preparation, was laid before the academy by M. Pédelaborde:—

A physician, aged sixty, enjoying habitually good health, was suddenly seized on October 27 with alarming symptoms of syncope and suffocation, together with pain in the sternal region. The paroxysm lasted only a few minutes, but recurred one hour after. The sounds of the heart were not changed. No further attacks took place during the next three days, when, on Oct. 31, a fresh paroxysm took place, during which the patient expired. On dissection the pericardium was found to contain ℥x. of blood, partly coagulated. On the anterior aspect of the heart existed an ecchymotic patch, and a distinct fissure of the serous membrane. The anterior coronary artery was lacerated, and presented a series of dilatations and strictures. Several collateral branches were obstructed by ossifications.

Meeting adjourned at half-past four.

FACULTY OF MEDICINE.

LECTURES ON GENERAL PATHOLOGY, BY PROFESSOR ANDRAL.

Chapter I. (*continued*).

SIGNS FURNISHED BY THE INVESTIGATION OF THE DIGESTIVE ORGANS.

In the other regions of the mouth we find few signs of disease deserving of attention. The velum, however, may be modified in its motion, and deviated to one or the other side, a diagnostic sign of some importance, and which should always be consulted in cases of facial paralysis, and does not exist when that disorder is the result of a change in the cerebrum. The tonsils are often hypertrophied in lymphatic and scrofulous subjects; their secretion not unfrequently becomes fetid, and, being expectorated in a dry state, might, if the possibility of an error was not pointed out, be mistaken for tubercular matter. The lips are usually enlarged, particularly the superior, in scrofula; we also may notice an accidental increase of their size in asphyxia. The colour of the lips is changed in various diseases: in acute gastritis they are, like the tongue, red and dry; whenever the free return of venous blood to the heart is impeded, as in disease of the heart, or in the paroxysms of suffocation which occur in pulmonary emphysema, they acquire a livid and bluish hue; in the chill of intermittent fever, they are cold and pale, but that paleness is permanent in chlorosis and anæmia, and is often better marked on the inner face of the lips than on the outside. The lips may be dry, or covered with a crust of desiccated blood, a circumstance often observed in fevers; after ephemeral fevers, the labial region is the seat of an herpetic eruption, which in ancient doctrines was considered critical of synocha; it is a singular phenomenon, which as yet remains unexplained in any satisfactory manner.

In fevers of a serious character, in meningitis, and when the nervous system is deeply affected, the movements of the lips are tremulous, and sometimes convulsive. In cerebral hemorrhage, ramollissement, paralysis of the portio dura, the mouth is deviated and dragged towards the side of the face which is not paralyzed, by the destruction of that muscular antagonism which maintained its rectitude. But the lips may be

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deviated from their natural direction without the other parts of the face being paralyzed: this may happen in two very distinct cases:—First, in inflammatory softening of the brain, when muscular contraction (contracture) is observed on the side of the body opposed to the diseased side of the cerebrum; in such cases, similar contractions are also noticed in the limbs. Secondly, when the facial nerve is pressed upon and inflamed, the mouth is dragged by convulsive action towards the diseased side.

The gums are generally altered in acute disease in the same manner as the tongue and lips. Dr. Ranque, of Orleans, asserts that in typhoid fever they are constantly covered with a white pellicle of variable thickness. This sign does not exclusively belong to typhoid fever, but may frequently be noticed in acute diseases, accompanied with a considerable degree of debility. The gums are subject to passive congestions, attended with softening and hemorrhage: we have even seen hemorrhage, due to this cause, occurring in the morning, and mistaken for hemoptysis; the blood is mixed with saliva, and presents most of the characters of pulmonary hemorrhage. In scorbutic subjects the gums are also turgid and soft; they may suppurate in consequence of decay of the teeth; and in saturnine intoxication present a bluish fringe, a slate-coloured edging, of considerable value to the diagnosis.

Alterations of the teeth may point to certain local conditions of the mouth, or belong to acute diseases; in pyrexiæ, for instance, we find that typhoid fever causes dryness, and a fuliginous deposit upon the teeth, the enamel of which is often destroyed. Dyspepsia also changes their appearance. In scrofula, their form, colour, and direction are likewise modified, and they decay readily. Scurvy, syphilis, and the abuse of hydrargyric preparations are also causes which produce changes in the aspect of the teeth.

Examining the mouth in general, we may say that stomatitis is sometimes idiopathic, but more usually symptomatic of numerous and very variable morbid conditions of the system. It may be connected with gastro-intestinal diseases; thus aphthous stomatitis often points to dyspepsia, chronic gastritis, &c. Symptomatic inflammation of the mouth is more frequent in childhood, particularly if debility be present. Thus, after acute and weakening maladies, the gums, the tongue, the inside of the cheeks of children are covered with a creamy, half-fluid deposit, which, when removed, leaves the mucous membrane pale, or more frequently red and shining. In the last stage of pulmonary consumption of adults, in the diarrhœa or obstinate vomiting of little children, this form of stomatitis is often observed. It is also noticed when debilitating causes have acted upon the constitution before the invasion of disease; thus, when individuals have for a long time been deprived of good air, sufficient light, or nutritious food, pseudo-membranous stomatitis may make its appearance at the onset of any acute affection, and should always induce the physician to be very guarded in his prognosis. It is to the influence of these debilitating causes that we must attribute the enormous difference which exists between the mortality in the diseases of children in hospital and in private practice. Syphilis has a tendency to produce ulcerous stomatitis, and the effects of mercury upon the constitution bring on an inflammation of the mouth, attended with salivation and a characteristic fetidity.

Passing from the mouth to the *pharynx*, we find here again that the redness of its mucous membrane often points to a general disease. In scarlatina, for instance, before any eruption has appeared on the skin, the fauces are congested and of a red colour. This hyperemia is generally not very intense, but it may increase, and, as in some epidemics, rapidly occasion diphtheritic inflammation or gangrene. This redness does not persist in the pharynx after the eruption has ceased so long as the redness of the bronchi after measles. It often happens in scarlatina that the eruption of the throat is much more marked than that of the skin; and, if an epidemic were not present, an error of diagnosis might easily be committed. It is common, and, according to Bretonneau, constant, before croup to notice redness of the pharynx; and, consequently, the illustrious professor of Tours lays down as a rule that in all cases of the sort the throat should be cauterized, in order to modify the nature of the inflammation and to change its diphtheritic tendency. The observation is, doubtless, true in most cases, but we believe that M. Bretonneau went somewhat too far in stating this premonitory redness of the pharynx to be constant in croup; we have sometimes known the disease to begin in the bronchi, and rise thence to the larynx.

Vesicular and pustular eruptions may occur spontaneously in the œsophagus or pharynx, but in general they are the result of the exhibition of large doses of tartar emetic. Much depends upon the dose: when less than ten grains have been taken in the twenty-four hours we have never noticed these bad effects of the medicine, and we believe that dose capable of producing all the contra-stimulant results which can be expected from the drug.

Difficulty of deglutition, or dysphagia, shows itself as a sign of many diseases—of inflammations of the mucous membrane of the pharynx or œsophagus, for instance. It is transitory when the diameter of the tube is not diminished; permanent, on the contrary, when the passage is more or less strictured. Destruction or disease of the neighbouring parts may also produce dysphagia; thus, when the velum, tonsils, epiglottis, or larynx are affected, dysphagia appears. When the larynx is diseased, the voice is also altered, and cough and suffocation attend the efforts of deglutition. In syphilis we find chronic laryngitis bringing on dysphagia, and yielding to special treatment. Alterations of the parts situated near the œsophagus or pharynx may gradually extend to the latter, and occasion great difficulty in the accomplishment of their functions. This we observe in abscesses, tumours, caries of the vertebræ, &c. In aneurism of the arch or thoracic portion of the aorta, dysphagia is a frequent symptom. Professor Green, of Dublin, states that out of twelve cases of aortic aneurism, dysphagia was present in nine.

Organic disease may bring on communication of the œsophagus, with the trachea, the right bronchus, or the pulmonary parenchyma. The disease, usually cancer, may have originated in the œsophagus and the lung participate secondarily in the alteration. A case of the kind was published in the "Archives" of Oct., 1846, by Dr. Vigla; in this instance the voice was gone, cough was present, emaciation had taken place, and hectic fever occurred every evening: pulmonary consumption was diagnosed, and the error rectified only after dissection of the body. Instead of arising primarily in the œsophagus, the disease may originate in the lung—a circumstance observed in phthisis, and occasionally in gangrene of the lung. A case of the kind was recently observed by Dr. Boudet: a little girl, aged twelve years, was, after scarlatina, affected with pneumonia; gangrene of the lung took place, and on dissection the œsophagus was found perforated, and communicating with the gangrenous cavity through four minute apertures.

Dysphagia may have its cause in a physical or a dynamical change in the nervous system. Thus, in the first place, cerebral hemorrhage, or softening, or morbid alterations of the spinal chord, may occasion it. In diseases of the spinal chord, it is generally one of the latest symptoms, and has been preceded by paralysis of the limbs and of the abdominal muscles; but it may also be an early and a fatal sign of organic disease of the spinal marrow. Neurosis or dynamical changes in the nervous system may also, as we have said, occasion dysphagia. Mental emotions, such as anger or fear, may produce it; but it is met with also in hysteria, hypochondria, and hydrophobia, whether the latter be observed as a simple phenomenon of certain acute disorders, or as the characteristic symptoms of rabies canina. In prolonged illness, where great prostration is noticed, the pharynx and œsophagus may be paralyzed, and permit the passage of fluids, as if they were inert tubes—a fact betrayed by the gurgling sound produced by fluids as they pass into the stomach; or real dysphagia may show itself as an atoxic sign of the most serious character.

We now turn to the study of the signs furnished by the infra-diaphragmatic portion of the digestive tube. The stomach is usually considered as the seat of two important phenomena, the alterations of which must first occupy our attention, viz., hunger and thirst; physiological differences are found in various individuals, with regard to the necessity for reparation: in childhood it is great and frequent; in the adult that necessity decreases; the aged require less food, but cannot bear prolonged abstinence. A sanguineous temperament, great muscular exertion, habit, the influence of a cold and bracing atmosphere, increase the appetite and the necessity for food; it is, on the contrary, diminished by opposite circumstances. In the pathological state, hunger may be increased, diminished, or perverted.

Morbid increase of hunger (bulimia) may be the symptom of gastralgia, or of an incipient organic disease of the stomach, which has not yet invaded its mucous membrane. When bulimia is connected with neurosis it is relieved by eating; but is, on the contrary, followed by pain, if it is caused by an organic disease, and if food be taken into the stomach. Bulimia sometimes accompanies chronic diarrhœa; it is often produced by the presence of tenia, and is mentioned as a premonitory sign of various diseases, and, finally, as one of the symptoms of convalescence.

Loss of appetite is more common in disease than the contrary symptom. Except in cases of pure neurosis, it is met with in most gastric affections: in simple, acute, or chronic gastritis, in bilious synocha, the appetite may persist, it is true, but cannot be satisfied with impunity; in cancer of the stomach, appetite is lost always at a certain period of the malady. The prolonged use of demulcent drinks also impairs the digestive powers of the stomach. In general, anorexia shows itself in the prodromate or in the first stage of acute disorders; whenever febrile excitement is present, it is also observed; but in hectic fever the appetite may still continue to exist. At an an advanced period of chronic maladies, when great debility has been induced, or after considerable loss of blood, the desire for food usually ceases; sometimes, however, patients express a disgust for all kinds of food, and this disgust must be overcome by an exertion of will. Although no appetite whatever be felt, nature occasionally expresses its wants by epigastric anxieties and faintings, symptoms which are immediately relieved by the ingestion of food. Absolute loss of appetite may also result from over-exertion, from mental emotion, or intellectual labour; from the abuse of fermented fluids or of narcotics; it is sometimes observed in hysteria, some subjects remaining so long as ten, twelve, or even fifteen days without taking any nutriment; and in some cases of insanity the monomania consists in a resolute determination to take no food.

The appetite may, further, be perverted. Chlorotic and hysterical patients sometimes take a disgust to animal food, and a morbid desire for crude vegetable diet. Others acquire a fondness for substances which have no nutritious properties, and in this request the most unaccountable eccentricities are observed: we have, in one case, met with a pasient who was in the habit of devouring paper; another who would constantly eat matches. In pregnancy these singular tastes are also frequently noticed, and in the asylums for the insane this perversion of the appetite is by no means rare. M. de Humboldt states in his "Tableaux de la Nature," that in the torrid zone earth-eaters are very common; and Dr. Levocher observes that in the Antilles the negroes frequently display a similar inclination.

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In healthy subjects, thirst is observed only during meals; when it exists at any other time it may, therefore, be considered as a pathological fact. In general it is connected only with one form of gastric alteration, viz., congestion and its consequence, inflammation. When feverishness is present in any degree, thirst instantly appears. When the blood has lost some of its water, when any secretion is morbidly increased, or even accidentally—perspiration or urine, for instance, or abundant diarrhœa also—thirst makes its appearance. In diabetes millitus it is a constant sign, but diminishes by the use of meat and stimulant diet, increasing, on the contrary, after the ingestion of vegetable food. In nervous subjects a peculiar form of disease is constituted by the mere increase of thirst: it is called polydipsia, a disorder more common in the female than in the male sex.

Thirst may occasionally be abolished—a fact of rare occurrence. It may also be diagnosed: thus the insane are not unfrequently found to have a perversion of the intellect which induces them to drink their own urine; and in some persons a singular tendency is noticed to periodical intoxication, brought on by an irrepressible desire, at stated intervals, for the use of fermented finids.

D. M'CARTHY, D.M.P.

Ununited Fracture Treated by Galvanism.—Mr. J. Burman, of Wath, near Rotherham, relates, in "The Provincial Journal," the case of a man, thirty-five years of age, a teetotaller, of robust constitution, who received a fracture of the leg by being thrown from his gig. The surgeon who attended him put the limb in a good position, and everything appeared to go on well, till on the removal of the splints it was found no union had taken place. Fourteen weeks after, when he came under the care of Mr. Burman, there was found a transverse ununited fracture of the lower third of both tibia and fibula; there was no formation of callus, and the fractured ends of the bones were quite movable, but could be readily adapted to each other; neither was there any inflammatory action about the parts, although, having been advised to rub the two ends of the bones together, he had very assiduously followed that advice. He was ordered a kind of boot made of sheet iron, which, when applied, might embrace the whole leg, ankle, and foot. This was well adapted to the limb by means of padding, so as to prevent any lateral motion—an object which was the more readily accomplished as the fracture was transverse; and that part of the boot which was over the fracture was made to turn back upon a hinge, so that at any time the injured part could be reached without disturbing the limb. With this apparatus firmly fixed, he was directed to take daily exercise in the open air; to partake freely of wine, porter, and animal food, and, when sitting, to have the fractured ends firmly pressed against each other, by means of a broad band passed over the knee and under the footboard, capable of being tightened by a strap and buckle, the leg being bent at the same time at a right angle with the thigh. In addition to this, for nearly half an hour every day, an electro-magnetic current was made to pass directly through the fracture by means of needles attached to the two poles of the apparatus, their points being inserted just under the skin, on each side of the fracture. This plan of treatment was commenced on the 9th of October; by the 22nd, sufficient inflammatory action had been set up to render the further application of galvanism unnecessary; and by the 30th, the deposit of callus was so copious, and the union of the fracture so firm, that the patient was permitted to return to his duties. The electro-magnetic apparatus used was a double-coil machine, exerted by two electrometers, on Professor Daniel's principle; two needles connected with this, being introduced obliquely just under the skin on each side of the fracture, thereby causing the galvanic current to pass directly between the ends of the fractured bone; and an acute pain was experienced when the circuit was just completed, but in a minute or two the pain became bearable, and the patient was able to sit under it for from fifteen minutes to half an hour.

Poisoning by Vinegar.—Dr. David, of Montreal, relates, in "The British American Journal," the case of a woman who swallowed nearly a quart of common vinegar. She had been very dull and low-spirited for two or three days previously. When she was seen, two or three hours after taking the vinegar, she was in bed covered with a cold perspiration, trembling from head to foot, and apparently alarmed at everybody and everything about her. Her breathing was very laborious and hurried; countenance perfectly wild; pupils dilated; tongue dry and cold; pulse 96, and full; abdomen much distended, with extremely acute pain at the scrobicalis cordis on the slightest pressure. She knew no one about her, nor had she any recollection of what had happened from the time of taking the vinegar, which was about eleven o'clock at night. At one the inmates of the house were awakened by her shrieking for cold water, of which she had drunk an enormous quantity before Dr. David was called to see her. There was not any pain, heat, or constriction of the throat or fauces, but there were slight efforts to vomit. Two scruples of sulphate of zinc were given in a cup of water, which soon produced full vomiting with great straining. Full and repeated doses of carbonate of magnesia were ordered, and in six hours after she was much relieved, complaining only of headache, which left her after the operation of a dose of castor-oil. Two days after she was seized with a slight attack of continued fever, but is now doing well. The only case of poisoning which Dr. David has been able to find is the one related by Orfila, in the "Annales d'Hygiène," and quoted both by Beck and Christison. The experiments instituted by Orfila prove that common vinegar in large quantities was found destructive to dogs when vomiting was prevented.

Insanity Cured by the Use of the Trephine.—Dr. Robertson, physician to the Yarmouth Military Lunatic Asylum, relates the case of a sailor, aged twenty-three, admitted into the Cumberland Lunatic Asylum in February, 1845. Ten years previously he fell from the mast of a ship, and the accident was followed by an attack of mania. In six weeks he recovered his intellectual faculties, but continued so ungovernable in his temper and conduct that he was removed to the asylum. He there complained of frequent pains in the part of the head on which he fell, and he had the delusion that these pains were caused by his mother beating him. He was morose, taciturn, and insolent, entertained great dislike to his relations, and was subject to violent fits of passion. On an examination of his head a very distinct depression was discovered on the posterior superior margin of the right parietal bone, the situation to which he referred the pains. It was resolved that the depressed portion of bone should be removed by trephine, and Mr. Furness performed it, the patient bearing it well, and the wound afterwards healing without an unfavourable symptom. The portion of cranium removed was apparently healthy on both its surfaces. It adhered very firmly to the dura mater, requiring considerable force for its removal. It was altered considerably in form, appearing to have been indented rather than fractured, which is not improbable, seeing the accident occurred when the patient was only thirteen years of age. After the operation his conduct became in every way improved: he had no bursts of passion, was grateful for the relief afforded him, and answered civilly when spoken to. Since the operation he expressed himself as free from pain in the head. He was eventually discharged from the hospital, showing no symptoms of his previous malady.

Deafness in Scarlatina and Measles.—Dr. N. Morrell, in the Annual Report to the Board of Directors of the New York Institution for the Deaf and Dumb, remarks that in twenty-five cases of death from scarlatina, wherein deafness had been a common symptom, the lining membrane of the Eustachian tube, on being examined, presented a character similar to the throat and nostril, being more or less changed, probably very red during life, but after death pale and thickened or softened, and uniformly covered with a thin glairy secretion, in which floated a great number of ash-coloured shreds, probably changed coagulable lymph, certainly not the natural mucous secretion of these membranes. This state extended uniformly through the Eustachian tubes quite into the tympanum, in which some of this changed secretion was always discoverable. The membranes lining the external meatus partook of the state of the skin: the natural secretion of wax seemed to have been nearly or quite suspended, and the membrane covered with many minute points, from which issued a sero-purulent secretion instead of wax. In fifteen cases of death from measles, where symptoms of deafness occurred during their progress, the membranes of the Eustachian tube and tympanum exhibited, on examination, traces of red vessels ramifying in all directions, together with a remarkable dryness, as if the mucous secretion had been suspended some time before death. The membrane of the external meatus showed that the secretion of wax had been interrupted also. So the exanthemata affect every portion of the tegumentary system. The lining membranes of the auditory passages of the vagina, uterus, and bladder, suffer alike with the skin. In the cure of deafness produced by the exanthemata, syrup of sarsaparilla, made after the old formula—to which may be advantageously added the root of rumex crispus, and the tinctures of the bark of prinos verticillatus and chymaphilla umbellata—is a remedy of the first importance; next, the muriate of lime, an old remedy now much neglected; and lastly, iodine and its preparations as internal remedies. Blisters kept perpetually discharging, placed behind the ears or on the arms alternately, form the remedies to be applied externally. The fauces must be well rubbed with a smooth piece of alum twice a week, to be occasionally alternated with a solution of nitrate of silver, or, when the tonsils are prominent, with the solid caustic not too heavily applied. Lastly, the external meatus must be cleansed once a day with warm brandy, or warm brandy and water, or a solution of iodine, or a decoction of the bark of prinos verticillatus. Perseverance in the course for months, sometimes for more than a year, finally ends with complete success, if the treatment have commenced before disorganization of the external or internal ear.

Proper Cancer Cells.—Dr. Hannover says these cells are round or oval, and only appear angular when closely pressed together. They are pale and finely granular on the surface, and form vesicles filled with a very pale fluid, as can best be shown by setting the whole mass in motion, when the cells may be observed to roll. Their contour is never sharply defined. Within the walls of the cancer-cells we observe one or more nuclei, which proportionally are of considerable size. They appear somewhat darker than the containing cell, and are more sharply defined. We almost always observe several nuclei in one cancer-cell. These nuclei appear also to be hollow bodies. They are sometimes grooved in the centre, and exhibit a tendency to subdivision. The molecules of which the nucleus is composed cluster about the little, round, semi-transparent nucleolus, of which one or two are to be found enclosed in each nucleus.

Causes and Nature of Winter Sleep.—This occurs in animals with the most different forms and degrees of development of the nervous system, and with the most different forms of the vascular system. Nor in the blood is there any peculiarity which can be considered as a cause of winter sleep. Dr. Barkon, of the Royal University of Breslau, thinks that imperfect respiration is the principal condition of the phenomenon referred to. He found that young toads and hedgehogs do not grow in this state, and that regeneration of lost parts in snails is arrested. Retardation is the general character of the organic as well as of the animal functions. The fully developed animal passes slowly into winter sleep, and comes forth from it in a state of rejuvenescence. The tame marmot is found to

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have forgotten its education, and to have become wild again. Winter sleep is not of the nature of asphyxia. Hedgehogs in winter sleep, if kept a long time under water, become asphyxiated; but the animal does not pass directly from the state of winter sleep to that of asphyxia, as from a lower to a higher degree of one and the same state, but first awakes, though imperfectly, and endeavours to escape. Again, the asphyxiated animal does not, on the return of life, pass through the state of winter sleep into the waking state, but directly into the latter, and only again falls into the winter sleep from the waking state. Nor has winter sleep any analogy to the embryonic state, seeing that in this, development is most active, whilst in that, the activity of development is arrested. Winter sleep differs essentially from common sleep. The most important differences between the two refer to digestion, growth, nutrition, reproduction, and formation of fat, almost all secretions, circulation, respiration, and evolution of heat. In common sleep, chymification goes on unchanged. Only at the beginning of incomplete winter sleep, or on interruption of it, does digestion go on. In perfect winter sleep the stomach is empty. If animals with their stomachs full are surprised by the sudden occurrence of cold, and put into winter sleep too soon, chymification stops. The common sleep of winter-sleepers powerfully promotes the formation of fat; during their winter sleep the fat is exhausted.

Thrush a Parasite.—Dr. Fr. Berg, physician to the General Children's Hospital, Stockholm, considers it to be perfectly established that a parasitic growth is a constituent part of thrush, and that this is to be seen at the very earliest appearance of the aphthæ, and continues present throughout the whole of their existence in the mucous membrane. He does not consider these affections aphthous when this parasitic growth is not to be found. The aphthous parasite, he says, can propagate itself in appropriate menstrua out of the body, and this not only when the aphthous crust is mingled with various animal fluids, but also when completely separated and cleansed from them. Its growth in such cases proceeds not only in a temperature equal to that of the human body, but likewise in one that is much lower. Aphthæ seem to require for their growth the presence of a body containing azote, such as albumen, as also that of materials for the generation of acid. Out of the body, aphthæ seem to develop themselves in two different forms: either in that of a great preponderance of sporules, when a white filmy membrane forms on the surface of the fluid; or, again, they appear chiefly as stems ramifying through the fluid, or aggregated into a felt-like mass. A solution of potass will always dissolve the molecular deposit of albumen, leaving the fibres and cells of the parasite totally unchanged.

Anteroversion of the Uterus during Labour.—Dr. Müller, of Hamburg, having been called to a woman in the country said to have been three days in labour, found the parts of the child unusually distinct on examination *ab externo*, while the most careful examination could discover no os uteri. The woman was small, and of a lax habit of body, and the child seemed only to be covered by the abdominal parieties. Abdominal pregnancy was diagnosed, which was confirmed by two older and more experienced men, called in for consultation. The question of the Cesarean section was already agitated, and anxiety as to what was to be done with the placenta was strongly felt, when one of the advisers recommended a search after the os uteri. After great exertion, it was discovered on the fifth day of labour lying above the promontory of the sacrum, and sufficiently dilated to allow the membranes to protrude, and the child to be distinctly felt. The nature of the case being discovered, the woman was placed on her hands and knees, the uterus then raised by a towel, the membranes ruptured, and the child extracted by the feet. Both mother and child did well.

Birth of Disproportionate Twins.—Inefficacy of Ergotine.—Drs. Stadler and Hensinger relate the case of a woman who, in the pregnancy of her second child, received a blow on the right side of the abdomen on March 18, from which she narrowly escaped abortion. A fixed pain in the right hypochondrium and a constant bearing down of the bladder remained, however, throughout the pregnancy, which, otherwise, proceeded normally. During the night of the 2nd and 3rd of October she was delivered of a weakly and asphyxiated male child, which was easily revived. The placenta was returned, and, after several hours' violent vomiting, uterine hemorrhage occurred, with pain in the uterus, especially on the right side. Her face was flushed; skin warm and moist; pulse 80, and full; the uterus extended to the umbilicus. On examination the umbilical cord was found lying in a mass of coagulated blood, and on removing this a solid body was felt, which was found to be a three months' fœtus, measuring 4½‴ from the crown of the head to the foot, and had evidently been long dead; the sex could not be discovered. The fœtus was connected by a withered cord six inches long, to an evidently newly separated and normal placenta, measuring in diameter 4″, and in thickness ½″. The placenta of the first child being retained by spasmodic contraction of the neck of the uterus, ext. sec. corn. aquos. (ergotine) was administered, eighty grains within ten hours, two to five grains every half hour, but without effect. The bleeding continued to recur in sudden gushes till four P.M. of the 3rd, when the placenta was removed by the hand; a small portion, however, was retained, which came away next day without hemorrhage. No adhesion of the placenta was found, nor any valve in the uterus. Metritis occurred, but the mother recovered perfectly. It is considered that the children were the product of one impregnation; and that from this and other failures ergot must be considered as a most uncertain medicine.

REVIEWS.

On the Inhalation of the Vapour of Ether in Surgical Operations: containing a Description of the various Stages of Etherization, and a Statement of the Results of nearly Eighty Operations in which Ether has been employed. By John Snow, M.D. Lond. London: J. Churchill, 1847.

Scarcely have six weeks elapsed since Dr. Snow's work before us issued from the press, and since that time a new anæsthetic agent has been discovered, which promises not only to supersede the vapour of ether in surgical operations, but those complicated apparatus which were considered necessary to bring a patient effectually and quickly into the state of insensibility. Surgeons had begun to feel that there were powerful objections to the use of ether in capital operations, and many were consequently performed without the patient being compelled to inhale the intoxicating vapour. The interest which the discovery first excited had greatly declined, and the medical periodicals rarely contained announcements of limbs amputated, stones extracted, or other great surgical feats performed on the human body, without those attendant sufferings which were wont to accompany the use of the knife.

Chloroform has not only superseded ether, but has also taken considerably from the interest and utility of the work before us; still, as the author has had very great experience in the administration of the vapour of ether, his opinions upon the effects produced by it are worthy of consideration.

He has divided these into four stages or degrees, acknowledging at the same time that the division is arbitrary, as the different stages run gradually into each other, and are not always clearly to be distinguished. In the first degree the person retains a correct consciousness of where he is, and what is occurring around him, and a capacity to direct his voluntary movements. In the second, mental functions may be exercised, and voluntary actions performed, but in a disordered manner. In the third degree there is no evidence afforded of mental functions being performed, and therefore no voluntary motions occur; muscular contractions, however, in addition to those concerned in respiration, may take place, as the effect of the ether or of external impressions. In the fourth degree there are no movements seen except those of respiration, and they are incapable of being influenced by external impressions. In the fifth degree (not witnessed in man), the respiratory movements become difficult, feeble, or irregular. Patients often experience pleasing sensations in the first degree; but in this stage Dr. Snow considers that it is not practicable to perform operations, without the absence of pain. Even in the second degree a surgical operation would cause pain, and it would be more difficult for the surgeon to operate with this amount of etherization than without ether. There can be no doubt that in this stage operations have been performed, and the patients have in consequence endured a great amount of physical suffering, the recollection of which has passed away with the influence of the vapour. In the third stage the performance of an operation might cause the patient to groan and flinch, but in this stage he utters no articulate sounds. If this stage be not well established, the first cut may cause a sudden contraction of the whole muscular system. If the exhibition of ether is discontinued in the third degree, the patient speedily goes back into the second degree. In the fourth degree the patient is passive under every kind of operation. The eyelids fall down over the eyes, or remain as they are placed by the finger; the breathing is deep, regular, and automatic, and there is often snoring and blowing of the lips in respiration. This degree seldom continues more than two or three minutes after the process of inhalation is left off.

Dr. Snow considers that a patient may be kept under the influence of ether for a considerable length of time without any serious consequences resulting, and he has met with but few cases where complete recovery has been delayed. This, however, has not been the experience of all who have administered the vapour; and some practitioners have been fearful of employing it, from the circumstance of their having had difficulties in this respect.

The experience of the author has been considerable, for he tells us, "The patients to whom I have given it have been of all ages, from early childhood to nearly eighty years—six of them being upwards of seventy. They have been in the most different states of general health: two or three had symptoms of tubercles in the lungs; one had extensive disease of the heart; two or three had been subject to attacks of congestion of the head: and yet there have been no ill consequences from the ether in any case, and not even any unpleasant effects to counterbalance its advantages, except sickness and vomiting in a few instances." He admits, however, that there are certain states of the body in which ether acts less pleasantly and favourably than in others; but that it fortunately happens these states are those in which patients are seldom found who require operations. Those of robust health are occasionally less promptly and easily made insensible than others, and are more liable to excitement in the second degree of etherisation, and to struggling in the third, and often suffer from headache afterwards. These persons are thought not often to require even a trifling operation; and should they on account of an accident require to come under the hand of a surgeon, the temporary depression produced by the injury and usually, also, a loss of blood, would serve as a preparation. On the other hand, insensibility is produced with great ease in persons debilitated by long illness. Children, also, are considered very favourable subjects for ether, being quickly brought under its influence, and recovering from its effects promptly.

Dr. Snow states that "the blood that flows in operations under the influence of ether is not much altered in colour. The blood which spirts

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from a divided artery is sometimes of its usual vermilion tint at the very time when the inhalation is going on; frequently, however, under these circumstances the arterial blood is rather less bright than usual, but the venous blood being at the same time less dark than common, the flow of mixed blood is of the ordinary colour of such blood, and the patient's lips remain unchanged in hue. It has been only when the patient has been holding his breath, or coughing, that I have observed the arterial blood to be of a dark colour; and I consider that those writers who have described it as being usually or always of a venous appearance, must have used inhalers that did not allow of a proper supply of air. The blood always coagulates on the floor of the operating theatre, and the black blood which flows during an amputation when the torniquet is applied constantly becomes afterwards red on the surface, from exposure to the air. There has not been any considerable secondary hemorrhage, except in one case, after an amputation; and, therefore, I cannot look upon ether as causing any increased liability to it; nor, indeed, is there anything to prevent every vessel large enough to require a ligature being tied at the time of the operation, for there is a good pulse—a better pulse, indeed, generally, than there would be if the operation were performed without ether."

As the value of an anæsthetic agent in surgical operations can only be determined by the ultimate success of the cases on which it has been employed, Dr. Snow very properly gives a list of all the operations in which he administered the ether in St. George's and University College Hospitals. We find from the tables, that out of twenty-six amputations there were five deaths, which is a little below twenty per cent. This is lower than the average mortality after the removal of diseased limbs. Dr. Lawrie's return of the Glasgow Infirmary gives twenty-four per cent. There are four cases of lithotomy in the table, all of which ended in recovery. In six operations on the female breast, in which the whole gland was removed, all the patients recovered. Out of fifty-six at St. George's, there were but four deaths; and after twenty-two operations in University College, but two deaths. The results, therefore, so far as they go, are satisfactory.

We have not entered into a description of Dr. Snow's apparatus for the administration of ether, as the introduction of chloroform as an anæsthetic agent will supersede, to a very great extent, the use of instruments; and we are glad to find that our author, at a recent meeting of the Westminster Medical Society, fully admitted the superiority of the newly-discovered agent to ether. He there stated it as his opinion, that the action of chloroform on the nervous system was identical with that of ether, and that he had produced the same effects on animals by both agents. At St. George's Hospital he administered the chloroform with his usual apparatus, in an amputation of the breast; the water-bath being 55°, and the quantity of vapour in the air inhaled not more than ten per cent. by measure; yet the patient was ready for the operation in less than a minute, and it was performed without the least sign of pain, being equal to the best cases of etherization. Only one fluid drachm of the material was used, although about ten fluid drachms of ether would probably have been used in the same operation. Dr. Snow, himself, has inhaled chloroform until he has become unconscious, and was very sick afterwards, as on the only occasion on which he inhaled ether to the same extent. He has ascertained the quantity of vapour of chloroform that air would hold in solution at various temperatures. The following table shows, according to his experiments, the quantity that 100 cubic inches of air will take up:—

Temp.	Cubic inches.
50	9
55	11
60	14
65	19
70	24
75	29
80	36
85	44
90	55

The quantity of this vapour inhaled by a patient at ordinary temperatures was only about a quarter as much by measure as there would be of ether, being, however, nearly twice as heavy, there was nearly half as much by weight. Dr. Snow prefers an apparatus, to the simple means recommended by Dr. Simpson, of a sponge or handkerchief.

THE MEDICAL TIMES.

SATURDAY, DECEMBER 11, 1847.

THE CHESTERFIELD UNION.

The slightness of the notice which we last week took of the motion submitted to the Chesterfield board of guardians was founded upon the idea, which subsequent facts have not supported, that the resolution was too absurd to receive a minute's consideration from any head out of Bedlam but one—his that proposed it. That excellent *guardian* was "*indignant*" that medical men should "*sneer*;" felt *surprised* that, suffering, they should complain; and, knowing about as much of literature as he appears to know of common sense, of common justice, or of common charity, must needs perk the expression of his ludicrous and diseased feelings before his board of guardians, and, through them, before the country. We regret to find that this singular *gentleman* is not singular in his anti-pauper insanity. His brother guardians, with more literature, have shown just as little learning, and, while throwing out much that was objectionable in the form of his propositions, have accepted all that was hateful in their substance. The following is the document agreed to by the Chesterfield board of guardians:—

"TO THE POOR-LAW COMMISSIONERS FOR ENGLAND AND WALES.

"Gentlemen,—The Board of Guardians of the Chesterfield Union having learned that a combination of certain medical officers, acting under the poor-law, has been formed with the avowed object of making an increase of their salaries *compulsory* upon the several boards by whom they are appointed, beg leave to state the reasons which, as it appears to them, render any regulation or enactment having that object, at least for the present, unnecessary or inexpedient.

"First,—We think that the medical officers in question have no *just* ground of complaint; because their connection with their respective boards is simply of the nature of an agreement betwixt two parties, whereby the one undertakes to perform a specified work for a stated sum to be paid by the other—this agreement being terminable at the option of either party. And if it be so that the competition which exists in the medical profession reduces the standard of prices, as it does often in similar cases, even below the remunerating point, we think it would be more reasonable to let the medical practitioners right themselves in the natural course of things, than that a board should be compelled to offer more for medical services than the common market price; unless, indeed, it can be shown that the usual mode of dealing produces an obstacle and manifest evil in this particular case.

"Secondly,—Although we are prepared to admit that the *money* payment made to medical officers by boards of guardians is of itself, *apart from other considerations*, sometimes clearly insufficient as a remuneration for their services, we cannot forbear noticing that whenever a vacancy occurs there is seldom any lack of duly qualified candidates for the office, and often much pains taken to obtain it, thereby proving to us that, in addition to the money payment, there are some *indirect* advantages annexed to the office which in the estimation of medical men are of no inconsiderable amount.

"Thirdly,—We think it is not yet proved that, whatever be the evils which are found to exist under the present rate of salaries to medical officers, the same would not also remain under an increased rate. We are of opinion that every case of neglect or wrong treatment on the part of medical officers which has come under our notice would not have been quite so likely to occur under a more liberal scale of remuneration; and most anxious as we are at all times not to let any notion of a paltry economy hinder us from supporting alterations which will be certainly beneficial to the *poor*, we declare, notwithstanding, that we know of no single advantage that we can positively ensure to *them* by increasing the salaries of the medical officers.

"Lastly,—We believe that the medical relief at present furnished under the poor-law will be found in the main to be superior to that which the poor have enjoyed at any former period; and we earnestly repudiate the notion that the defects of the present system, whatever they be, are to be attributed to the inadequate remuneration of the medical officers."

A circumstance that may well excuse on our part "the surprise and indignation" so thrown away by the Chesterfield guardian, is the fact that a meeting like that of the Convention could have stimulated any body of men not out of their senses to such a measure as that adopted by the Chesterfield board of guardians. The meeting was not aggressive. The Chesterfield board escaped at it all animadversion. No one heard a word descriptive of the very peculiar principles of honesty on which it now appears to guard its poor and pay its doctors. Then what could have stimulated the men to the extraordinary act of buckling on their armour to tilt at our windmill—uninvited to bring to bear upon us all the troublesome apparatus of fierce and horrid war? Certainly the *animus* which makes them go off, so to speak, at half-cock against us, is one of the most incomprehensible of psychological phenomena developed since the days of Don Quixote; and, if it happen that the due care of their pauper poor leaves them a leisure which they do not know how to make better use of, they would confer a favour on poor-law surgeons, on themselves, and, indeed, on science generally, by devoting their extra time to the communication of their mental experience to some Conolly, or Costello, or Sutherland, to whom new psychological phenomena are matters of curious and useful investigation.

These gentry offer "*reasons*" why a change is unnecessary or inexpedient, "*at least* for the present." We presume from this that they are not quite so sure as to what may be necessary and expedient at an early day; and it is curious, that while they limit their objections to a change in the present, all their arguments, if they have any value, apply generally to the future. "Four" are the reasons they deign us—the first being so effectual, if accurate, as to make the other three quite supererogatory. "First," say they, "the medical officers have no *just* grounds of complaint." Now, why have they not? Because, forsooth, a bargain has been made! Then, "if one won't do it another will." Then "they are not sure that better payment would secure better attendance"; and, lastly, "doctors now give the poor better attendance than ever they did"! So that, apart from the absurd ludicrousness of those gentlemen, we have this constant characteristic continually: that wherever there is matter of fact there is *falsehood*, and wherever matter of reasoning a want

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of logic. A bargain does *not* imply its own justice. There are bargains of all classes of moral worth, and, if ever there was one which involved immorality and wrong, it is the bargain which the medical officer is compelled to enter into with such hard-fisted guardians as those found at Chesterfield. Not more to be pitied is the man in embarrassment left at the discretion of the grinding usurer. The guardians have entirely the responsibility of the justice or injustice of the bargain, as they alone have the freedom of dictating its terms; and if they take advantage of circumstances, to extort from the medical officers an undue and an unfair consideration in time, in talent, and in commodities, for their money, they commit more than single injustice to the contracting party whom they defraud, for they assume on their own shoulders all those destructive consequences to the pauper sick which will inevitably follow a dishonest contract for their attendance. The very grounds, therefore, on which they base the justice of inadequate payment, are the very grounds which destroy their argument. The guardians seem conscious of this fact, for they admit that, if this mode of dealing produce an obstacle and manifest evil, it ought to be altered. Can it be doubted for a moment, that medical men receiving for their attendance and drugs, payments which do not even cover the expenses of the latter, cannot afford to supply by themselves or others all those agencies which a complete and satisfactory attention to the poor would require? And is it not in human nature that the unpaid will underwork, and that the man of good principles, feeling that the duties imposed upon him are not only imposed upon him by verbal contract, but by adequate remunerative sanction, will fulfil them? Besides, medical services can never be made a subject of contract on free-trade principles like the subjects of ordinary merchandise. Boards of guardians want in their medical officers not those ordinary commodities of which they themselves are competent judges; they want services at once enlightened and confidential; they want trust, skill, and character; and these are elements not to be provided by any system which recognises the person with the cheapest price as the best man. Character is no element in the commodity of the butcher or the baker, although even in their case, if beef and bread were offered at half the prices they must cost the venders, boards of guardians—the Chesterfield board always excepted—would recognise in such tradesmen, men too foolish or too roguish to be encountered in commercial dealing.

As to the argument that there are indirect advantages to be derived from a poor-law appointment, it is simply false, and, if true, would imply dishonesty in any one who should take advantage of it. The board of guardians require certain services, and, as men of reason and of candour, should be ashamed to accept them at any price below that which a reasonable estimate of their value would fix. Had they paid treasurers as they have paid secretaries and clerks, they would see at once that any system which would offer such appointments to the lowest bidder might secure temporary and apparent pecuniary economy, but would neither permanently serve the funds nor answer the obligations of such bodies.

Only one further statement is necessary for these literary guardians of Chesterfield. So fond are they of their intellectual progeny that, at their own expense or *that of the ratepayers*, this document has been sent free to every board of guardians!

THE ROYAL SOCIETY.

Our readers have no doubt read with delight Dr. Roget's graceful address to the Royal Society(a)—an address made interesting to the scientific world by the important fact it announces, viz., his intended resignation of the post which he has, with so much distinction to himself and English science, held for the last twenty years. Dr. Roget's words have, of course, been daringly garbled by the Marshall Hall clique, and we are thus tempted to some little notice of the authorized misrepresentation that has been published on them.

We are prominently told that, on the conclusion of Dr. Roget's address, the Marquis of Northampton "*instantly* rose to explain." Now, first, he did not rise "instantly;" and, secondly, there was no explanation needed, or, indeed, given. The marquis, at a later stage, entirely limited his observations to the simple announcement, that he wished it to be understood that Dr. Roget had not *actually* resigned, but simply stated his intention of doing so next year, his lordship's object being to offer to the society some apology, as it were, for not proposing at that meeting the thanks of the Royal Society to Dr. Roget for his long and valuable services.

As to Dr. Roget being *pale* and *evidently deeply affected*—another cause of congratulation to the clique—the circumstance, if true, would be to us no great matter of surprise. Human nature must be obdurate and unimpressionable indeed which, visited by the recollections of the malignity which has for some years been vexing and annoying a worthy man, could have sustained the retrospect without some little emotion.

We are again told, that "that there has been, for the past year especially, a general feeling of the necessity for Dr. Roget's resignation, if the credit of the society was to be preserved or retrieved." Need we say that this is *most* unfounded—most unfair? We know the *few* fellows who have, "for the past year especially," wished for Dr. Roget's resignation, and we know why. Do they—dare they express a wish to have their names, their motives, their *doings*, published?

But, then, the secretary is the "guardian of the *honour* of the society." Surely Dr. Marshall Hall and Dr. Lee would hardly impose upon Dr. Roget a responsibility which *their* fellowship must make so heavy? Honour! exclaims Dr. Hall, with the Middlesex Insurance Company as his referee! Honour! says Dr. Lee, with the Hunterian drawings backing his appeal! Well may the old proverb insist on "*honour*" under the most hopeless circumstances, and most unfortunate companionship!

We have, then, a statement, that "some of Dr. Roget's supporters proposed an increase of salary." Of *course* it is utterly false.

Much is added about a certain mysterious "baleful influence on anatomical and physiological science," which Dr. Roget has exercised. *Latet dolus in generalibus;* and your worst characters, will always have most verbal love of humanity, science, &c. Is it possible that the baleful influence to *science* was a certain baleful decision to the clique, by the Committee of Physiology, and by the Council, by which signal justice was done to a certain trio?

On the cool effrontery of assuming that the clique is "the press," and that "the press" has terminated Dr. Roget's scientific career, nothing need be said. The Secretary's address declares, "I retire in time," says Dr. Roget, "that I may devote the remainder of my days to science, to which I have always been particularly attached."

After twenty years' service the retirement of a worthy servant is no unlikely event: and it would be to little purpose to enlarge on the ill taste which can exult in such an event as the personal triumph of a duet of malignants, who audaciously lay claim to the circumstance as the creditable result of their suppositious influence.

(a) *Medical Times*, Dec. 4.

MEDICAL REFORM FOUNDED ON PUBLIC UTILITY.

The important subject of Medical Reform will again speedily be brought before the supreme Legislature, and certain measures proposed, in order that they may be enacted into laws, which shall for the future regulate the affairs of the profession in this country. Various attempts have been made at different times, and by different individuals, either holding official situations under the Government or not, to induce the Legislature to enact laws, which they who have drawn up bills have offered as the only means of advancing the interests of the science of medicine. Many of these have been marked by the most glaring imperfections, their authors either not understanding the great subject on which they have written, or being moved by some narrow principles which would rather advance certain personal interests, to the injury of the medical profession and the public. Any one who has examined the subject with moderate attention must acknowledge that it is beset with numerous difficulties, and that these can only be effectually overcome by enlightened and persevering efforts. It requires master-minds to understand reform in all its bearings, and indomitable spirits to carry it through to a successful termination.

Upwards of thirty years the medical profession has been in an unsettled condition, and more than one Home Secretary, who has attempted to do something to remedy its grievances, has been compelled to give up all attempts in consequence of the utter impossibility to effectually reconcile the conflicting interests which appear to be involved in the undertaking. Numerous abuses amongst us have become venerable from antiquity, and they have acquired additional strength in consequence of their being sanctioned by some one or other of the chartered medical institutions. These have hitherto proved strong opponents to the progress of Medical Reform, as they have considered it their interest to maintain in all their integrity the present order of things, and, animated by a spirit of selfishness, they have become apparently insensible to the feelings of pity or of shame. Possessed of power, they have employed it for ignoble purposes, and in the nineteenth century they have become burdens too grievous to be borne by an enlightened and liberal profession.

We must not place upon medical corporations, however, the entire blame of having prevented the Legislature expunging from the statute-book injurious enactments and substituting for them wholesome laws; the fact is, that the liberal members of the profession have not taken the right ground to enlist strongly in their favour public opinion. We cannot blind our eyes to the truth that, in our struggles for emancipation, the people have looked on with comparative indifference, and their apathy has been produced by their ignorance of the relation existing be-

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tween sound medical reform and their own welfare. This circumstance has been nearly overlooked, or at least has not been brought prominently forward, by the advocates of a liberal policy; and the consequence is, that, up to the present time, the public has regarded medical reform as interesting to those only who are within the pale of the profession. Nay, more, there have been some dark suspicions entertained occasionally that medical men, in seeking to procure certain changes amongst themselves, with the sanction of the Legislature, have not in view the welfare of the people, but simply their own worldly interests.

It is to be regretted that many speeches and pamphlets on medical legislation have been the innocent means of leading the non-professional members of the community to suppose that their interest has never been consulted; and, indeed, on a perusal of some of these productions, we cannot avoid arriving at the conclusion that the authors themselves had but crude notions of the relation of the subject to the public welfare. In too many instances the question has been discussed upon mere professional grounds, and it has been apparently forgotten that, in order to accomplish medical reformation, it must be urged upon the plea of public utility. Some have been foolish enough to seek merely a greater security against the encroachments of unlawful practitioners, while others have with more enlarged vision advocated still further the necessity of a more liberal education and stringent examination for those who are to become the future practitioners of medicine. These have been considered necessary, first, to prevent the profession from being overstocked; and, secoud, to increase its respectability in society. The objects contemplated are good, so far as they go, not simply because they will confer certain benefits on a particular order of men, but because every class of society must be benefited by their being attained. Laws only are beneficial as they contemplate the advantage of the whole community, and to enact any which will only benefit a particular class would be to establish a monopoly which would confer privileges on a few to the injury of many.

It is a singular circumstance that many of the members of the medical profession in France, in seeking to obtain a measure of reform for themselves, were charged with a spirit of monopoly by a member of the House of Peers, Count de Montalambert. In a speech which he delivered to the French Chamber of Peers, on the subject of medical reform, on the 5th of last June, we find him using the following language:—"I cannot conceal the fact that, with few exceptions, such as the memorial of the graduates of Montpelier, and an essay by M. Loreau, on medical practice in the country, I found in the publications sent to us by medical practitioners little else than the inspirations of a corporate feeling—the reasonings of a caste, the selfish, almost greedy, demonstrations of a trade, which have shocked me. It is easy, indeed, to plead a cause in a narrow spirit, but this is not the way to gain and excite the sympathy of legislative assemblies, whose duty is to watch over the welfare of the general body of the nation, and not yield up the commonwealth to the depredation of special interests within its bosom. I will even admit to your lordships, that after rising from the perusal of all these trashy writings, were I not restrained by the respect I owe this illustrious assembly, I would glady seek the works of Molière and Lesage, the only answer these doctors deserve. I should thus, at least, make myself some amends for the weary labour I have undergone in wading through pages, where the only question is about the greater or smaller amount of doctors' fees, or the power and profit of medical corporations. Let me, however, be understood not to speak here of the time-honoured profession of physic, but only of such of its members as have taken part in these discussions."

This is the language of a man who had deeply studied his subject, and who, in many parts of his address, enunciated principles which ought to form the basis of all medical legislation. He was offended with many who had stood forth as champions of the profession, not because they girded on the armour to fight in a righteous cause, but in consequence of their erroneous views and sectarian principles. Taking their own statements as criteria from which he might form an opinion, he arrives at the conclusion that they are less concerned to promote the interests of the public, than to secure for themselves some great and permanent advantages. Such champions he indignantly rebukes, while he pays a well-merited compliment to the science of medicine. The peer of France should teach English medical reformers an important lesson, not to advocate their cause upon the narrow basis of professional aggrandizement, but upon the broad one of public utility.

All their demands can with the utmost propriety be urged by this important plea, for the members of the community are the parties who must be benefited by an improved system of medical polity. What is now sought is a better system of corporate government, a better system of medical education, and improved means of suppressing quackery. The members of the profession, in their endeavours to elevate their own condition, offer to society additional guarantees for the physical well-being of all its members. Chartered medical institutions were originally founded for the express purposes of preventing ignorant persons from exercising the healing art, and for promoting the cultivation of medical science. They have not faithfully discharged their important duties, and hence some alteration is imperatively required. At the present time the public are robbed and injured to an alarming extent by unprincipled men, who boast of the possession of nostrums which will cure the most fatal diseases. The members of the profession seek to restrain these unrighteous acts, and the parties who suffer injury in their purses and constitutions ought to know that, this accomplished, the most important advantages will result to themselves. It is a question whether quackery, as it now exists in this country, is at all injurious to the pecuniary interests of medical men. It may be otherwise: but of this there can be no doubt, that ignorant charlatans thrive at the expense of the unwary public.

Medical reformation is, therefore, not a thing whose benefits will be confined to a particular order, but extended to all classes of society. Upon this ground the profession should seek their support, and, this once obtained, all difficulties will be speedily overcome.

MEDICAL WITNESSES IN CORONERS' COURTS.—THE RELATION OF A SUMMONS TO A FEE.

"Res magna est."—TERENCE.

THE friends of the profession are always known by the kindness which they manifest towards its members; and its enemies can only be discovered by their hostile actions. It is possible for words of kindness to escape the lips of those who have not our welfare at heart; these, of course, no wise man would trust, when their actions more plainly declare that they are uttered merely with the intention to deceive.

The medical profession have had many professedly their friends who, if we are to judge by their conduct, have no pretensions to that character. It would be an ungracious task here to endeavour to analyze the motives of these individuals; and it is no pleasant undertaking, though it is an imperative duty, to place before the medical public sins against its members, committed either by corporations or individuals.

It has been the fashion for some time past for the medical periodicals to write in favour of a fair remuneration being granted to medical men for their important services. Justice and the interests of the public demand this, and we feel a pleasure in beholding the efforts of any to advance so desirable an object. It has been the hard fate of medical men to have experienced acts of oppression from persons in authority, and these have become in many instances so galling as to force the members of a peaceful profession to stand up in the defence of their just rights, and for the maintenance of their honour. That poor-law guardians should endeavour to obtain for parishes the services of medical men at a low price excites in us no astonishment, and credit must at least be given to most of them for not acting hypocrites in their attempts to curtail the fees of medical men; but we do feel indignation when other official persons, with less pretensions to liberality, should be found displaying a parsimonious spirit towards them.

Our attention has been recently directed to a dispute which has arisen between Mr. Robert Synnot, surgeon, of Cadogan-place, and Mr. G. S. Mills, the deputy coroner for Middlesex. It is a matter which interests all general practitioners, and which was to have been settled in the Bloomsbury County Court. It appears that, in September last, Mr. Synnot was called to see a child which was taken suddenly ill and died, and that he proceeded the next day, without the coroner's authority, to open the body. When he arrived at the residence of the parents, who were anxious that the cause of death should be ascertained, he found there the parish constable, who had, without the surgeon's knowledge, informed the father of the deceased that he intended applying to the coroner to hold an inquest. Without being armed with authority, the man in office desired Mr. Synnot not to touch the body, an order, however, he refused to obey, and so he proceeded with the *post-mortem* examination.

Some days afterwards a warrant was brought to him, commanding him to attend an inquest, then sitting, to give evidence as to the cause of death. This summons was obeyed, and evidence strictly medical was given, upon which, it appears, the jury returned a verdict. At the conclusion of the affair, however, when the fees came to be paid, Mr. Deputy Mills, the *locum tenens* of Mr. Wakley, refused, not only to give the usual sum for a *post-mortem* investigation, but also for the medical evidence. Feeling himself aggrieved at this circumstance, the medical witness wrote to the friend of the profession, Mr. Wakley, claiming remuneration, not for the autopsy, but for evidence as a surgeon. This, he states, was refused, and no grounds shown for the refusal. Mr. Synnot, with praiseworthy re-

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solution, determining to see the matter out, summoned Mr. Mills to the County Court, whose reasons for not paying, Mr. Synnot gives, in one of the weekly journals, in the following words:—"First, I opened the body in contempt of the coroner. This I deny, as the body was not under the coroner's protection at the time I made my *post-mortem*. Secondly, he says, I attended and gave my evidence on an *ordinary summons*, and *not on a medical one*. This I did through ignorance, but whose fault was that? If I had for one moment suspected that such an unfair advantage would have been taken of me, I should most certainly have refused to appear till I was properly summoned. If the coroner had sent me a verbal message I should equally have attended. And I believe that many medical men have attended to a verbal message from the coroner, and been paid the usual fee; but I shall be wiser for the future." We have known many instances of this kind, and no demur whatever made to the surgeon receiving the fee allowed by law. It is necessary, however, that all members of the profession should now be on their guard, lest when summoned to attend a coroner's court, and the moment comes for payment, they may find a sum less than a guinea put into their hands, with the explanation, that the warrant was one for an *ordinary* witness, and as such they must receive *ordinary pay*. We trust that the County Court has by this time decided the matter in favour of the surgeon, and that the profession will henceforth learn how to value certain declarations coming from certain quarters, "on behalf of our injured brethren—the general practitioners of the United Kingdom."

ROBERT LISTON, F.R.S.

We regret to announce the death of this distinguished surgeon, which took place at his house in Clifford-street, on Tuesday last. Mr. Liston had for years been in the habit of rising at an early hour in the morning, and giving from four to five hours daily, before business, to active exercise in boating, walking, &c. It was his custom on returning from these excursions to take a cold shower-bath; but a few months since, while undergoing this process, a large vessel in the lungs gave way and poured out an enormous quantity of blood. The health, thus undermined at the very moment of, apparently, its greatest strength, was slowly recovering from the blow, when laryngitis supervened, which, after a short illness, carried off this distinguished ornament of the profession.

By his death the following offices are vacated:—Councillorship to the College of Surgeons, examinership to the College of Surgeons, surgeon to the University College Hospital, professor of surgery to University College.

DR. BURROWS AND HIS CLASS.

Some ill-tempered criticisms, founded on mistaken data, having led to some misapprehension among certain students of St. Bartholomews's Hospital, Dr. Burrows, on Tuesday last, thought it due to himself to make the following explanation. The address, it is a pleasure for us to say, gave general satisfaction, as was indeed well manifested by the loud applause which greeted the speaker both before and after the lecture.

TO THE STUDENTS OF ST. BARTHOLOMEW'S HOSPITAL.

Gentlemen,—I deeply regret to find that certain portions of my evidence, given before a committee of the House of Commons, were expressed in a manner calculated to disturb the good feeling which has hitherto subsisted between us, and that the intention has been imputed to me of wishing to disparage you in public estimation.

I am anxious to explain to you the real scope and purport of my remarks on the occasion referred to; being conscious that those remarks were inadvertently couched in terms which have rendered them liable to misinterpretation.

In answer to a question put to me by Sir James Graham, I attempted to show that no analogy exists between the condition of barristers and that of the majority of the young men who enter our profession; and I pointed out that barristers, being usually possessed of ample means, are enabled to devote a long period to their preliminary education; whereas the majority of the gentlemen who enter the medical profession are compelled, by the more limited extent of their pecuniary resources, to proceed at an earlier age to their professional studies, in order that they may the sooner obtain an independent maintenance: some, by the acceptance of public appointments, and others, by at once commencing private practice. These remarks were originally made in answer to question 442.

At a subsequent stage of my examination, a member of the committee read to me a part of that answer with two not unimportant inaccuracies—using the terms "*humble means*" for "limited means," and "*in a small way*" for "as he may." (Compare the answer to question 442 with question 833.) And it is to this incorrect version of part of one answer that attention has been publicly called.

It will be seen that in those remarks my aim was not to describe *absolutely* the station in society and the acquirements of the students of medicine, but to contrast their position with that of the highest section of the legal profession. In such a comparison (which the nature of the question forced me to draw), the circumstances of my professional brethren at the commencement of their career could not fail to appear at a disadvantage.

But in other parts of my evidence, where I *had* occasion to speak *absolutely* of the members of my profession, I maintained the right of every one of them to be regarded "*as a gentleman and a man of education.*" (See the answer to question 479.) And I more than once repudiated terms of a degrading tendency when applied to them. Thus (in answer to question 830), I said, "I do not like that term 'POORER CLASS'; *it may mean to infer some degree of inferiority*, when *all classes are equally respectable.*"

In answers such as these I expressed the sentiments I have always entertained with regard to the great body of my professional brethren. I believe that, in the whole course of my evidence, not a word inconsistent with those sentiments had passed my lips; otherwise I would not have referred, in support of the statements I had made, to my long intercourse with the gentlemen educated at St. Bartholomew's Hospital—gentlemen with whose character and reputation my own, as a teacher of medicine, are identified, and of whom I have on many public occasions gladly testified, that no other body of students in this metropolis is more highly qualified by their acquirements and conduct to secure the respect of society for our useful and honourable profession.

In conclusion, gentlemen, let me assure you that nothing was further from my intention than to utter a word which could tend to disparage you in the estimation of our profession, or of the public. And let me further assure you of my sincere regret that any incautious expressions of mine have admitted of such interpretation as to wound the feelings of those whose esteem I have constantly desired to cultivate.

I remain, Gentlemen, yours very faithfully,

GEORGE BURROWS, M.D.

St. Bartholomew's Hospital, Dec. 6.

APOTHECARIES' HALL.—Gentlemen admitted members on Dec. 2: Edward Henry Malbon, T. Wm. Crosse, and James Horniblow Williams.

CHLOROFORM.

[To the Editor of the Medical Times.]

Sir,—Having employed chloroform in numerous cases, I have great pleasure in offering additional testimony of its superiority to ether, over which it certainly possesses all the advantages maintained for it by Dr. Simpson. I would also offer one or two remarks as to its mode of exhibition. Dr. Simpson advises a handkerchief twisted into a conical form. At most of the metropolitan hospitals, and by many practitioners, a sponge is used. All the various forms of ether inhalers seem to be employed, and an especial apparatus has now appeared, similar to that employed by Mr. Robinson; but whether this gratuitous information is correct I know not.

Now, Sir, the employment of any form of apparatus is certainly attended with inconvenience, is calculated to awaken the fears of the patient, and the use of a mouthpiece by one person after another disagreeable, to say the least. The use of the sponge has vesicated the lips, as at Bartholomew's; is equally unpleasant—in fact, disgusting—as being employed for different persons, and, if held close, causes an obstruction to respiration. The method adopted by Dr. Simpson is undoubtedly superior to either—pouring the chloroform upon a clean handkerchief or small napkin (preferable, as being stiffer), it can be rolled into a conical shape, but leaving an opening at the apex; held a short distance off at first, after two or three inspirations the base may be brought so as at once to cover the nose and mouth, and, being adjusted by the fingers of the left hand, will fit the face sufficiently for the air respired to pass through the opening at the apex.

The cleanliness of this method is sufficiently apparent; the attention of the patient is not attracted by the action of the valves; no obstruction is offered to free respiration; the air inspired is at a more favourable temperature; and, when the influence is effected, the operator, not having to place an instrument down with care, simply throws aside the napkin, and is at liberty; no time being lost, he need not so permanently soporize his patient, a matter not unworthy of consideration, particularly in minor operations. Since the introduction of etherization, I have constantly employed it in painful operations, if desired by my patient, but have never had a case occur in which its influence has been so lengthened as in many that have been reported to me; this naturally induces a supposition that a larger quantity is sometimes given, causing a more persistent action than there is any occasion for.

Here, then, is at once the simplest and the best means of exhibiting this agent. All that can be urged against it is simply that a portion of the chloroform must be dissipated also in expiration—a matter not worthy of consideration.

I am, Sir, your very obedient servant,

SAMUEL GHRIMES,

Dentist to the Metropolitan Free Hospital.

71, Baker-street, Portman-square, Dec. 6.

POISONING BY OPIUM.

[To the Editor of the Medical Times.]

Sir,—Soon after the publication of the paper in the *Medical Times* on the subject of "Poisoning by Opium," I received a flattering letter from a general practitioner in North Wales, and I am induced to send you a short extract of the same. Should you deem it worthy of notice, or in any way likely to assist in the circulation of the *Medical Times*, you are perfectly at liberty to use it as your judgment may suggest.

I remain, dear Sir, yours faithfully,

GEORGE CORFE.

Middlesex Hospital.

"I cannot conclude this without thanking you most cordially for the benefit you are bestowing on the profession by the publication of those most excellent papers on the portraits of disease. Your account of the symptoms of poisoning by opium I am able to verify, unfortunately, in every particular, having accidentally had given to me an over-dose last month. I maintain it is the only true account on record; the history given in books of the symptoms is not correct. I tried tea and coffee, but not one instant would either remain on the stomach. I got well in seven hours."

P.S.—From the tenor of the remarks antecedent to this extract, I have but little doubts that the same agent, electro-galvanism, was employed as related in the paper in the *Medical Times*. I am not acquainted with the gentleman who thus writes to me.—G. C.

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RHEUMATISM AND CHOREA.

[To the Editor of the Medical Times.]

SIR,—The interesting observations in your last number, on the connection between rheumatism and chorea, by Dr. Peacock, are not new. Probably the latest publication on the subject worth noticing is an elaborate paper by Dr. Begbie, in the seventh volume, p. 740 *et seq.*, of "The Monthly Journal of Medical Science." This writer seems to view both diseases as in some degree allied in their pathological conditions, inasmuch as they sometimes occur, conjointly or separately, in different individuals of the same family, thus denoting their dependence on the same morbid diathesis. The association of these diseases is also treated of by Bright, Copland, and others; but nowhere, so far as I know, is it insisted upon with such force of illustration and evidence as in the paper referred to. I am, Sir, &c.,

J. JONES.

Llanfair, Montgomeryshire, Nov. 27.

PHYSIOLOGICAL PROBLEMS.

"Think wrongly if you please, but in all cases think for yourself."—LESSING.

[To the Editor of the Medical Times.]

SIR,—1. Do the materials of which the blood is composed—the food and drink—pass from the alimentary tube through the lacteals, mesenteric glands, and thoracic duct, into the left subclavian vein? Or does the food only take that course, and is the drink absorbed by the radicles of the gastro-intestinal or mesenteric veins, and then transmitted by those veins into the vessel which takes the blood to the liver? Or are both the drink and the food—the fluids and the fluidified or digested solids—absorbed by the gastro-intestinal capillaries, and then transmitted by the gastro-intestinal or mesenteric veins into the vessel which takes the blood to the liver, and which vessel consists of the splenic vein and its roots, and the portal vein and its branches?

2. Are there, as Harvey taught, only two vascular systems: a lesser or pulmonic, and a greater or systemic? Or are there three vascular systems: an hepatic, a pulmonic, and a systemic; each system consisting of an afferent vessel, capillary or perferent vessels, and efferent vessels?

3. There are no less than nine organs which have no excretory ducts, and which, with the unimportant exceptions of nerves entering them, and lymph and lymphatics passing out of them, have nothing passing either into or out of them but blood and blood-vessels. These nine organs are the heart, the spleen, the thyroid gland, the pituitary gland, the pineal gland, the thymus, the placenta, and the renal capsules. Is the heart the only one of all these organs that is subservient to the motion of the blood? Or is every one of the eight others, as well as each half of the heart, part of a vessel, or of a set of vessels, the use of which is either to generate, or accelerate, or retard motion of blood? If so, which organs are parts of vessels which generate motion of blood? Which organs are parts of vessels which accelerate motion of blood? And which organ is a part of vessels which retard motion of blood?

Dec. 1. J. J.

WHAT IS QUACKERY?

[To the Editor of the Medical Times.]

SIR,—I have occasionally read very angry denouncements of that something called "quackery," and in some of the journals those denouncements have been written in unmeasured terms; but amidst all the vulgar accompanying abuse I have not been able to discover that any one of the writers thereof ever attempted to define the correct meaning of that word "quackery"; at any rate they have not enlightened the uninitiated, and, therefore, I venture to appeal to you for a comprehensive definition of the term as pretended to be understood by the faculty.

With your well-known and estimable liberality you have opened your pages to many opposing writers on different subjects relating to the practice of medicine, and, amongst other subjects, the principles and practice of homœopathy.

I do not pretend to know anything of homœopathy, but I am anxious to learn whether it is "quackery," or a system of medicine?

If you say a system of medicine, how can it be proved to be so, since it is, I understand, impossible to analyse or weigh the infinitesimal quantities administered in a twelvemonth? And how would the Royal College of Physicians, or the Society of Apothecaries, attempt to prove that the dispenser of homœopathic globules is a dispenser of medicine? Nay, more, who, and where is the chemist that can analyze a "homœopathic dose"?

If to practise homœopathy is to practise physic, we may soon look for more "Fallacies of the Faculty." Do enlighten us in your next number, but pray stick to the text throughout.

I am, Sir, your obedient servant,

F. F., M.R.C.S.E.

MR. BRAID AND MR. WAKLEY.

[To the Editor of the Medical Times.]

SIR,—I beg to thank you for your kindness in so promptly inserting my last communication in your columns. May I crave your indulgence once more in order that I may vindicate myself from a still graver charge, which Mr. Wakley brought against me in the same paper, than that which he preferred against Dr. Elliotson? Mr. Wakley stated that my experiments with the key were not original experiments; that their prototype was an experiment by Mr. Wakley on Elizabeth Okey (in 1838), when he substituted a bit of lead for nickel, and *vice versâ*. I was thus represented as having attempted to plagiarise Mr. Wakley's original experiments.

In reply to this grave charge I beg to assure Mr. Wakley, and all whom it may concern, that in recording the adventures of my portmanteau, key, and ring, I had no notion whatever that I was thereby subjecting myself to the suspicion of desiring to rob Mr. Wakley of what he deemed his especial property. I meant simply to narrate a fact, and one which appeared to me a good example of the power of suggestion in eliciting certain mental and physical phenomena with some patients during the abnormal sleep-waking condition. In fact, I should as soon have thought that Dr. Haygarth's experiments with the fictitious tractors in 1799 were the prototype of Mr. Wakley's with the lead and nickel in 1838, as that these latter were the prototype of mine with my portmanteau, key, and ring. A hasty or careless view of the subject may lead to the mistaken notion that there is a similarity or identity in all these three sets of experiments; but a little careful reflection will be sufficient to prove that each set of experiments was original, distinct, and independent of the others. Thus, in Dr. Haygarth's experiments, whatever wooden instrument he used, all were followed by positive effects, and clearly proved that these effects were not produced by any magnetic influence inherent in metallic tractors, as had been alleged by Mr. Perkins, but that the effects were entirely mental in their origin.

Mr. Wakley's experiments again were positive or negative, according to the varied metals with which he operated; and according to his statement, when he operated with lead, the patient believing it to be nickel, the effects of nickel came (Dr. Elliotson denies this at page 208 of the "Zoist)" for July, 1847); and, on the contrary, that when he (Mr. Wakley) operated with nickel, the patient, believing it to be lead, that no effect followed. I am not aware that Dr. Elliotson has contradicted this last part of Mr. Wakley's statement. The results were thus active or passive according to the expectation or belief of the patient. Now, these experiments of Mr. Wakley have always appeared to me to have been well devised and adroitly managed for determining the physical fact as to whether or not Dr. Elliotson was correct in maintaining that nickel was powerfully mesmeric, whilst lead was wholly inert; and they clearly proved that Dr. Elliotson's hypothesis was erroneous in this respect. I by no means, however, consider that they warranted the conclusions which Mr. Wakley so hastily jumped to and published, that the patients he operated on gave the manifestations realised from sheer imposition; and, consequently, that the whole of what had been designated as the mesmeric state and mesmeric phenomena must be, or ought to be, denounced as unmitigated imposture. Even supposing these girls had been impostors (which I conscientiously believe they were not), still it would have been most unphilosophical to conclude that there could be no such thing as an honest individual in the world merely because Mr. Wakley had met with two rogues. If everything is to be set down for imposture which it is possible to feign, then there can be no such thing as natural or drug sleep; neither can there be any such thing as pain, spasm, or palsy; neither can there be loss of feeling or impaired function of any of the other organs of special sense; neither can there be such feelings as heat or cold, hunger or thirst; neither can there be such diseases as mania, imbecility, or idiocy: for it is not only possible, but perfectly easy, to feign all these conditions.

My investigations have enabled me to arrive at the true solution of this problem, for determining the real cause of the remarkable results realized by Mr. Wakley in the experiments performed by him on the Okeys and others of such a nature, which is this, that many patients who are naturally highly susceptible of such influence (for there is great difference in this respect in different individuals) become at length liable to be affected entirely through the force of imagination, belief, and habit; and that they do not exhibit these manifestations from any desire to deceive others, but because they are self-deceived, through their implicit credulity, belief, and fixity of their attention on the idea suggested in their hearing, or in any way associated in their minds with certain processes and combinations of circumstances. Mr. Wakley may denounce me "soft" for believing and promulgating this opinion, still I hesitate not to say, most deliberately, that I feel confident that I am right and that he is wrong upon this point. In saying this I by no means wish to stand forth as the apologist of all mesmerists, and of all mesmeric, or alleged mesmeric, patients. I am perfectly well aware that there has been much imposture in this as in other departments of science; but I ground my opinion on the *bonâ fides* which have come under my own immediate observation, and been repeatedly proved with many of my relatives and valued friends, whose honour and veracity are unimpeachable. I have the honour and satisfaction to be in possession of letters from many of the brightest ornaments of the medical profession, and of general science, expressing the entire concurrence of the authors of these letters with my views, both as to the nature, cause, and extent of what are called the mesmeric phenomena.

If Mr. Wakley is really desirous of arriving at the truth in this matter, and not of hoodwinking his readers by furnishing them with only one side of the question, I shall be happy to name five or six distinguished individuals, and let him name a like number of equally respectable and competent gentlemen, to act as a committee to investigate the subject thoroughly, and publish in all the medical journals their final decision, as to whether his expressed unlimited scepticism, or the headlong enthusiasm and implicit credulity of the thorough mesmerists, or the moderate views contended for by myself and those who espouse my views, are nearer the truth. Would this not be more dignified conduct, and conduct more worthy of the high and sacred duties of the editor of a medical journal, whose duty it is to "hold the mirror up to nature," to seek and strive for truth and that only, than pandering to the prejudices of uninquiring dogmatic sceptics, by writing or publishing attacks upon mesmerism, written with all the art and disingenuousness of the special pleader, who legitimately contends not for truth, but for victory?

And now, in respect to my own set of experiments with my portmanteau, key, and ring. They were all of them performed with the same material agent, and they were followed by positive or negative effects of many varieties of character, and that in exact accordance with my predictions or suggestions, on the principle which I have explained in the last paragraph. The selfsame substance and form of agent in my experiments having been followed by varied and opposite results, according to my auricular suggestions, clearly proved that they did not proceed from any physical influence inherent in the visible and tangible instrument used, but that they were entirely the result of a mental influence. Both my experiments and inferences, therefore, are quite distinct from those of Mr. Wakley: his results having been preceded by change of physical agent as well as idea; whereas mine were preceded by change of ideas only; and I leave it to your readers and the public generally to decide whether my theoretical views on this point, or those of Mr. Wakley, are nearer the truth.

In conclusion, I would beg leave further to add that I feel quite certain that with many patients there is a reality and peculiarity in the sleep, and many varied phenomena which may be brought about and manifested by many patients by certain processes; and I feel equally confident that there is nothing occult either in the nature, cause, or extent of the phenomena as contended for by the mesmerists. I believe there is nothing to be accepted as well-established facts which does not admit of explanation on generally-admitted physiological and psychological principles.

I believe, moreover, that the greatest obstacles to the general acceptance of what is really true in this

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inquiry, is the implicit credulity and headlong enthusiasm of many of its votaries, who contend for so much of the marvellous and supernatural as sets all reason and physical laws at defiance; and who attribute to the somnambuli faculties which, if true, would upset the whole fabric of society in the present state of our existence, and which, on this ground alone, may be safely set down as erroneous. Besides, the amount of evidence which is deemed sufficient proof by the mesmerists of such marvels is by no means adequate to satisfy the minds of mankind generally, who deem the amount of evidence in any intricate and fallacious case ought to be commensurate with the difficulties of the case, and competent to guard against all obvious sources of fallacy.

I remain, Sir, your most obedient servant,
JAMES BRAID, M.R.C.S. Edin., &c.
8, St. Peter's-square, Manchester, Nov. 27.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTE ON MEDICAL LEGISLATION.

(Mr. Lawrence's Examination continued from page 45.)

MR. DERMOTT'S CASE.—I should say that there is no one surgeon of great eminence that is out of the fellows' register; I do not mean to say that they are all eminent men that are in it. On the whole, the 600 most eminent surgeons in England and Wales are now fellows of the college; no doubt of it; I will state, without any hesitation at all, that there was not a single name put upon that list of fellows from any private feeling or favouritism, or a single name left out from any private feeling against that individual. It is not the fact that we are now receiving the certificates of the competency of individuals in anatomy and surgery from persons whose names have been excluded from the list of fellows of the college. It is the fact with regard to one individual. That individual was not excluded on account of personal prejudice, apart from demerit, as it appeared to the council; his competency as a teacher is admitted, and I believe that he is competent in the branches that he teaches. His demerit was not professional but personal.

QUALIFICATION OF PRACTITIONERS. — I think it desirable that practitioners should be as highly qualified as you can make them; that they should possess as much knowledge as possible. The council has not had to consider any plan for making the qualification equal throughout the different parts of the United Kingdom of Great Britain and Ireland. The council is the council of the College of Surgeons of England, acting under their charter, which defines the objects for which they are created, and it is not their business to endeavour to equalize the education throughout the whole of the profession. I will not speak to all the provisions of the bills; I do not recollect that that was one of the provisions of the bill. It was proposed that there should be a mode of equalising the examinations and the education in the different colleges and universities, and that if that proved satisfactory, and they could act upon it, the right to practise should be general; supposing sufficient security is given for the amount of education, and the nature of the examination. I cannot state what the council thought upon a vast variety of things, and upon a vast variety of occasions, with reference to this matter. I am aware that all the curricula and ordonnances and by-laws were to be submitted, under the right honourable gentleman's bill, to the Council of Health. I dare say that council had full power to prevent our laws and regulations from being carried into effect if it should disapprove of them. I do not remember the powers exactly, or whether they were absolutely defined. I rather think there was some very general power given, but there was nothing definite expressed as to that power, and one cannot say what would be the best form in which to give it. I think that the determination of the course of education, and the nature and extent of the examinations, would be best left to the examining bodies. I think that they can regulate those matters in the best way. I have not expressed myself in favour of uniformity of qualification, because I do not know that it is possible to obtain it. It would be desirable that as good an education as possible should be maintained, but I imagine that in medical education, as in other things, we cannot have things uniform. In Scotland the course of education differs very much from ours, and so again in Ireland; but the education should be, in regard to length of time and the subjects taught, as nearly equal as possible, and as far as possible an equally good education. The system in our college is as perfect as possible. I think it answers all the purposes very well indeed. I think that it provides that the public shall have practitioners who are competent to discharge the duty entrusted to them. I do not mean to say that the diploma of the College of Physicians or Surgeons will be a guarantee that that individual is at once as competent to undertake the care of diseases or accidents as parties who have had larger experience. Medicine and surgery are practical arts, and before a person has begun to practise he cannot be thoroughly qualified, it requiring great experience to give a person complete skill in medicine or surgery. In my opinion we take sufficient steps to obtain full information with regard to persons applying.

THE PASTRYCOOK. — It is not true that a curious instance occurred lately in which a tradesman obtained a diploma, who had been studying medicine for about twelve months. The correct statement of the case would be to this extent, that a party presented false certificates to the college, containing incorrect representations on certain points, and the college was to a certain extent imposed upon, as to the character or previous position of that party; but by those certificates he had been studying the profession more than eleven months. It was more than thirteen; if you wish to have an explanation of the exact state of the case, I can give it you. In the first place, this was not a young man coming for his examination at the conclusion of his education, at the age of twenty-one years, but he was a person forty years of age; he presented himself for examination at the college as a person who had been some years engaged in practice. He was a pastrycook and confectioner. Heretofore it was not the practice of surgeons in the country to furnish themselves with the diploma of the Royal College of Surgeons of England; in fact, the majority, forty years ago, did not take out the diploma. It was not legally necessary; indeed it is not legally necessary to enable parties to practise now, and it then was not the custom; the diploma did not stand in the same estimation that it does now. The consequence is, that there have been many highly respectable practitioners in the country practising as surgeons who did not possess the diploma, and there are many now who do not possess the diploma of the College of Surgeons. The senior surgeon of the largest hospital in a large city in England at this moment is not a member of the College of Surgeons, and the late principal surgeon to the infirmary in another county town was not, and is not at this moment a member of the College of Surgeons, although a gentleman in large practice, and enjoying the confidence of the country; and no doubt there are others similarly circumstanced. In process of time the estimation of the diploma has so increased, that no man goes into practice without possessing it, and the party who has gone into practice previously now finds himself placed at a disadvantage; he is pointed at by his competitors as a party not having a diploma. Then, again, there is a recent order of the poor-law commissioners, requiring the diploma of the college as a qualification for the appointment of surgeon to any union, and many surgeons were in danger of losing their situations by not having that qualification, and they came to the college and said, "We want to be examined for the diploma." The college then said, "You have not received an education according to our regulations." They said, "It is very hard upon us; these regulations did not exist when we were educated; we have been practising as surgeon to this or surgeon to that institution, and now we cannot be re-appointed, for it is an annual appointment, without your diploma." The Council of the College of Surgeons thereupon decided, in the first place, with respect to students, for there had been considerable alterations in the curriculum, that students should be examined under the curriculum in force at the time they began their education; and, secondly, that gentlemen who had been engaged some years in practice should be admitted to examination on such evidence of education as the Court of Examiners might think fit, the council considering that there was great hardship in those cases, many of those persons being kept out of situations which they had held for some time, and who ought, therefore, to have an opportunity of presenting themselves and getting the diploma of the college. The Court of Examiners have, therefore, admitted under that description several persons who came up as practitioners without exacting of them evidence of having gone through the existing curriculum, but they required evidence of a certain amount of education. The gentleman in question came up with evidence of fifteen months' study, and an extra certificate of diligence, and I believe that he had worked extremely hard, and made the very best use of his time, and he produced the certificates of a physician in large practice in Somersetshire, of another gentleman, physician to a lunatic asylum, and of a surgeon to the navy, that he had been in the study and practice of the profession ten or more years. Of course the college could not know whether this person, coming out of the country, was a practitioner or not. Here was a man of forty years of age, and he sent in his statement that his family were dependent upon his professional exertions, and, supported by those certificates (and there was also a certificate from a near relation of one of the highest men in this kingdom, who had been under his care, and his family, and other evidences of the same kind), the Court of Examiners saw no difficulty in admitting him to examination; he underwent an examination, and received a diploma. Now, the charter has of course contemplated this case, because it provides that, if any person has received a diploma in consequence of any fraud, false statement, or imposition, the diploma shall be recalled; the consequence of which is, that the council having inquired into the matter, having ascertained the incorrectness of these statements, and having heard the individual, has recalled his diploma. He has not given it up, and we cannot extract it from him, but his name will be omitted from the printed list. The diploma has been recalled, and the council have tendered him back the money that he paid upon receiving the diploma. The possibility of such a case has been anticipated by the charter. His name will be struck out of the list of the college. With regard to the observance of our own regulation with reference to study on this occasion, I have mentioned already that a discretionary power had been entrusted to the Court of Examiners, of admitting to examination for the diploma gentlemen who had been for some years engaged in practice, although they might not have passed through the course of education prescribed in the regulations. The council considered the case of these gentlemen hard in the circumstance of the diploma being suddenly required in cases where it had not previously been necessary, and they adopted the course I have mentioned as a remedy for the hardship. We have regarded persons in the situation of the individual with respect to whom I have just given evidence, in the same light as persons practising before the 1st of August, 1815, would be regarded, in the case of the Apothecaries' Society, and a great many have been examined and received diplomas in consequence of that circumstance. When the regulation of the poor-law commissioners first came out there were many applications to the college, and there

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were several individuals who would have been hardly dealt with if they had not been considered and treated in that way. In the case of the pastrycook we had the certificates that I have mentioned to you, of a gentleman who had been physician to the King of Hanover, of the physician to a county lunatic asylum, of a surgeon in the royal navy, and of some very respectable persons who employed him. Whether any one of them stated that he had been a practitioner in surgery or not, I will not say, but that he had been practising in the profession for ten years. The truth is, that this gentleman is in considerable practice, and has the confidence of the people in the district where he lives, and I believe more so in consequence of the college having withdrawn the diploma. That fact rather confirms my general remark, that mankind are not the best judges of the real attainments of medical practitioners. He is practising as a general practitioner, but I believe he is more particularly devoted to homœopathy. He was examined in the usual way, and passed through a very fair examination. I believe he had been studying anatomy, that he had been fond of chemistry and of making experiments, that he had read medical books, and had not devoted much time to his business, which was conducted by his wife and assistants. I can read something which the council published in reference to that matter:—"The Court of Examiners having found that erroneous statements have lately been published respecting the mode in which gentlemen engaged in the practice of surgery may obtain the diploma of the college, and that other candidates for the diploma have experienced difficulty and inconvenience from inattention to the regulations, by which the required course of study has been from time to time augmented, or from inability to comply with those regulations, have resolved that gentlemen who were practising surgery prior to 1835, be admitted to examination on producing proofs of such anatomical and surgical education as may be deemed sufficient by the Court of Examiners." That gave a discretion which enabled the court to let in practitioners who had been unpleasantly and injuriously affected by the new regulations, especially in reference to the poor-law unions: "That other candidates be admitted to examination upon the production of the several certificates required by the regulations in force, when they began their professional education by apprenticeship or by attendance on lectures or hospital practice." It was under the dispensing power of that resolution that this party was examined. The date of that resolution is Nov., 1842; it was about the time that the poor-law commissioners published their resolution requiring the diploma; there were cases of great hardship brought before the Court of Examiners at that time. Compulsory apprenticeship I quite disapprove of. I said that I thought the bill would qualify a man to practise as a physician of St. Bartholomew's Hospital who was a surgeon or apothecary. I understand that certain parties are entitled to be put upon the register, and that thereupon they receive a certificate, and that no other legal qualification except that certificate is required to hold all kinds of public appointments in the profession. At the present moment, if the governors of that hospital chose to elect the pastrycook, who lately successfully underwent our examination, there is nothing to prevent their electing him as a medical officer of that institution, but this bill would give him a legal qualification to hold such office. I do not know that he is legally disqualified now. It seems a strange thing to say that a man, who is in practice as an apothecary, and who receives a certificate under this bill, shall be capable of holding every kind of medical appointment, from the highest to the lowest. I know that it is so at this moment, and that it is only prevented by the good sense of the managers of the particular institutions.

College Lists.—I think that the colleges might blend their lists into one, and would do so if Parliament desired it. The heads of the college have not been consulted upon the subject. It is a considerable trouble to keep a list of the members of the college, but it would not give much more trouble to blend that with the two other London lists every year. The register might be alphabetical, specifying the qualifications under each name: "A. B., licensed by the Society of Apothecaries;" "C.D., diploma of the College of Surgeons," and so on. If a man held three qualifications, I should put them all in; you may have an alphabetical register of the whole, expressing the particular qualifications of each individual. The registration adopted in this bill is one part of it. I see no objection to physicians and surgeons and general practitioners being registered alphabetically, provided their qualifications are stated as in this bill.

Reciprocity of Privilege.—If a man has undergone his examination and received his licence in Edinburgh or Ireland, and he desires to practise in England, I do not consider it necessary that he should undergo a further examination, if proper regulations are made to ensure equal education and equal examination. If that point is secured, I would wish him to be admitted as a member of the college here without examination. I do not say without the payment of a fee; there are various matters connected with the payment of fees that are of some consequence; if he comes for his advantage, I do not know why he should not pay a fee. A practitioner going to Scotland ought to pay a fee. I do not think Scotland will get many fees in that way. It would not necessarily be the same fee. It might or might not be right to make them pay the fees; fees are applicable to a variety of purposes. Take the case of the College of Surgeons of London; the fees afford the means of sustaining and increasing what may be called the great national museum of anatomy, physiology, and pathology, a collection which does honour to the country, for nothing similar to it exists anywhere else. The council have collected the most extensive medical library in the kingdom. The fees received by the college afford the means of accomplishing these and other important public purposes; both museum and library receive large additions every year. Since John Hunter's time that museum has been considerably more than doubled, entirely at the expense of the College of Surgeons. It appear to me that if persons coming from Scotland or Ireland to practise in London are admitted to equality of privilege here, if they enjoy the benefit of the museum and its library, they would purchase the privileges very cheaply by paying the fee; and the college has in its service the very first talent in the kingdom for managing, displaying, and illustrating the museum. The shades between the practice of the physician and the surgeon run into each other, and cannot be distinguished accurately. Though pure surgeons exist in London, there is no etiquette in the profession which prevents a pure surgeon being called in, by a patient suffering from an internal disease not requiring surgical aid, to prescribe and treat the malady. The surgeons and physicians meet in consultation reciprocally on medical and surgical cases. And there is no etiquette of the profession preventing or restraining surgeons and physicians being thus consulted reciprocally in medical cases. The public, therefore, enjoy the benefit of consultation of men of eminence in their separate departments, without any hesitation as to their aiding each other, in ministering to the wants of the patient. On the other hand, I am sure that subdivision, as a general rule, leads to excellence in each department. Whenever the science of medicine is cultivated to a great extent, and carried to the highest point, those divisions have been found necessary, as being conducive to the full promotion of science. But the distinction is not in practice carried so far as to cut off the patient from the free exercise of his choice in consulting medical men. I have stated that there is but one pure surgeon in Scotland, and that the surgeons belonging to the College of Surgeons in Edinburgh correspond in some respects to the members of the Society of Apothecaries in this country. They are general practitioners, as I am given to understand. I have had occasion to examine the fellows or licentiates of the College of Surgeons of Edinburgh. I have not found them deficient as a body; of course individually there are some good and some bad, like those from other places. I do not consider the College of Surgeons of Edinburgh an institution of very considerable repute. There is no reason against surgeons practising midwifery; I do not approve of that disqualification for the fellowship.

Opinion on the Bill.—I have expressed a strong opinion against the present bill; but I am not aware of the first medical men in any branch of the profession having any personal interest that could be affected by the success of such a bill. My objection is founded more upon a view that it would injure the profession in future than that it would injure the leading men of the day. I stated that I wished the surgeons received as good an education as the physicians, and I also stated that, after the year 1850, we would require them to produce evidence of an education equal to the master of arts' degree; but I cannot say individually that I expect that by that time surgeons will be found to go to the university for their preliminary education. I think that, taking the expense and the time occupied, the profession does not hold out a sufficient prospect of remuneration to induce them to do it. If the degree were conferred under circumstances requiring a less amount of residence, that would facilitate the matter. The Secretary of State has not the power of revising all our by-laws, but a new by-law must be presented to the Secretary of State for his sanction. I think that every law that we have presented has been approved by the Secretary of State.

The Pastrycook Again.—With regard to the pastrycook, I stated that we had recalled the diploma and tendered him back the money that he had paid; but we have not any power to make him give it back. We had not any answer from him. He appeared with certificates which would justify us in examining any gentleman, but these certificates were false; it was proved to our satisfaction, for the charter requires that the party shall be heard; that is, he is to be informed that a meeting will be called, at which he may attend and give an explanation, and he did attend; the party, therefore, is heard before his diploma is recalled. But we have no power of punishing a party who gives a false certificate.

Election of the Council of the College of Surgeons.—It would be, in my opinion, a hazardous experiment to confer upon the members of the college generally the right of electing the council. I do not know what the result of it might be. I think the right of election is much safer where it now is. I do not like universal suffrage in any way. Members of the college whom we have admitted by examination as qualified to practise surgery are, in my opinion, too numerous a body for election. I cannot tell what would be the result. I see that the institution goes on well as it is, and my wish in all cases is to maintain arrangements that answer their purpose well. Supposing a single faculty were admitted, and that the effect of the establishment of a single faculty were to raise the standard of medical education generally, provided we left the business of chemists and druggists unregulated as it now is, and without any check, empirical practice of chemists and druggists would of necessity be greatly increased on such a supposition.

Chemists and Druggists.—I think that chemists and druggists ought to be regulated by law; they have delicate and important duties; at present their knowledge is not in any way tested. Their practising over the counter is attended with danger. I doubt it is possible to prevent that. Poor people cannot afford to employ a well-qualified practitioner. For one-sixth of the expense, or even much less, they get what

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seems to them to answer the purpose equally well from the chemist and druggist. I have stated that there is not sufficient remuneration to encourage medical men to undergo a very extended education; that is one reason why we should not attempt to raise the education of medical practitioners to too high a point. I think it has been carried as far as it can be safely.

(To be continued.)

GOSSIP OF THE WEEK.

UNIVERSITY OF LONDON.

SECOND EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICINE, 1847.

First Division.—Thomas Snow Beck, University College; Bose Bholanoth, University College; William Brinton, King's College; Henry Cris, King's College; Peter Eade, King's College; John Cooper Forster, Guy's Hospital; Henry Isaac Fotherby, Guy's Hospital; Gopal Chunder Seal, University College; William Henry Greenwood, Guy's Hospital; John Braxton Hix, Guy's Hospital; William Henry Holman, London Hospital; Walter Johnson, Guy's Hospital; Nicholas Henry Littleton, University College; Stephen Monckton, King's College; Jabez Spence Ramskill, Guy's Hospital; William Henry Ransom, University College; John James Rygate, London Hospital; Henry Wiglesworth, University College.

Second Division.—Thomas Green, Royal College of Surgeons in Ireland; George Henry King, Guy's Hospital.

EXAMINATION FOR HONOURS.

The names are arranged in the order of proficiency.

Physiology and Comparative Anatomy.—Henry Wiglesworth (Scholarship and Gold Medal), University College; Peter Eade (Gold Medal), King's College; William Henry Greenwood, Guy's Hospital; John Braxton Hicks, Guy's Hospital.

Surgery.—Peter Eade (Scholarship and Gold Medal), King's College; John Cooper Forster (Gold Medal), Guy's Hospital; Henry Isaac Fotherby, Guy's Hospital; John Braxton Hicks, Guy's Hospital.

Medicine.—Peter Eade (Gold Medal), King's College; Walter Johnson (Gold Medal), Guy's Hospital; Gopal Chunder Seal, University College; Henry Isaac Fotherby, Guy's Hospital; John James Rygate, London Hospital; John Braxton Hicks, Guy's Hospital; William Henry Greenwood, Guy's Hospital.

Midwifery.—Henry Wigleworth (Gold Medal), University College; John Cooper Forster, Guy's Hospital.

EXAMINATION FOR THE DEGREE OF DOCTOR OF MEDICINE, 1847.

First Division.—Thomas Herbert Barker, University College; Henry Bateson, Guy's Hospital; Bose Bholanoth, University College; Arthur Hawden, University College; Nicholas Parker, London Hospital; (a) Peter Redfern, 1, Surgeon's square, Edinburgh; William Henry Williams, University College.

Second Division.—Hugh Bell, Guy's Hospital; Thomas James Sturt, King's College.

ST. JAMES'S PALACE, NOV. 23.—The Queen has been pleased to appoint Dominic John Corrigan, M.D., to be Physician in Ordinary to her Majesty in Ireland.

ROYAL COLLEGE OF SURGEONS.—Gentlemen admitted members on Friday, the 26th ultimo, viz.:—R. Dowell, H. W. H. Richardson, M. T. Mason, T. H. Mitchell. J. Marshall, E. Stride, G. F. Banks, J. Robinson, and T. Smith.—On the 3rd inst.: W. England, W. S. Savory, H. B. Holl, J. Bustin, R. Montgomery, J. G. Doidge, J. F. Stevenson, T. G. Salt, W. Davies, C. Forbes, A. J. Gee, W. Morris, and A. D. Home.

(a) To Dr. Redfern was awarded a gold medal for his commentary on a case in medicine.

THE INFLUENZA.—This disease, which has within the last month prevailed so much on the Continent, has visited the metropolis, and at the present time there are great numbers suffering under its influence, though we have not heard of its having yet assumed a very fatal character.

WAR-OFFICE, NOV. 26.—Hospital-Staff: William Freeman Daniell, gent., to be Assist.-Surg. to the Forces.—Dec. 3. 92nd Foot: Charles Robert Robinson, gent., to be Assist.-Surg., vice Downes, appointed to the Staff.—Hospital-Staff: Assist.-Surg. Henry Downes, M.D., from the 92nd Foot, to be Assist.-Surg. to the Forces, vice O'Connor, promoted.

NAVAL APPOINTMENTS.—Surgeon: H. Jameson, to the Victory.—Assistant-Surgeons: W. E. Hambly, to the Vindictive; J. Lugton, to the Firefly; K. F. Williams, to the Blenheim; W. M. Saunders, J. C. Inglis, W. Patrick, and Dr. M'Ewen, to the Victory.

THE CHOLERA.—Our private accounts from Germany state that precautionary measures were everywhere being adopted against the invasion of the cholera. The medical men sent by the different Governments to study the nature of the malady all agreed that it pursued precisely the same course as in 1831. After making comparatively trifling ravages in Southern Russia, where it has now completely subsided, it advanced towards the north, sparing the same localities it had spared in 1831, and visiting those which it had decimated in that year. The mortality produced by it is less than in 1831-32, because fewer individuals are attacked, and because physicians are better acquainted with its treatment; but the symptoms are exactly similar, and in some instances the malady is more violent and its progress more rapid than formerly. In several districts, moreover, it is followed by typhus fever, the consequences of which are often more fatal. The cholera is now raging with a certain intensity in the government of Kiew and the adjoining provinces. Thence it has extended towards Galicia and Moldavia, as in 1831. Some cases were even said to have already manifested themselves at Kamenetz-Podolskoi. The Austrian Government had sent physicians to Galicia, furnished with extensive powers and orders to establish a rigorous sanitary cordon along the adjoining portion of the frontier. As far as the epidemy has been observed, it is invariably preceded by influenza.

Our Malta correspondent writes on the 24th ult. that, since the supposedcase of cholera which he announced in his last letter, the island has been as healthy as before, and no other case has manifested itself.

THE CHOLERA: NOTICE TO MARINERS.—A notice has been issued from the office of the Swedish and Norwegian Consulate, London, stating that "all vessels departing from any foreign port on this side of Cape Finisterre, and destined to Sweden, must be provided with a bill of health, signed by the Swedish and Norwegian consul at the place, or, in the absence of such functionary, by the constituted authorities, in which it must be stated whether the cholera has been or is prevalent at the said port or in its neighbourhood, and as to the state of health of the crew and passengers on board. Should the vessel touch at any intermediate port on the voyage, it is the duty of the commander to provide himself with a similar document from thence."

A letter from Vienna of the 28th ult. states that the cholera had manifested itself with some violence in the circle of Tarnopol, in Galicia. The great scarcity of provisions prevailing in that district considerably favoured the development and propagation of the epidemic.

Our private correspondence from Malta, of the 18th inst., announces a case of Asiatic cholera on board the French steam-boat Mentor, which terminated fatally in Malta harbour on the 17th. The Mentor was in consequence not allowed to remain in the harbour of Valetta, but was ordered to Marseilles, where she is to perform quarantine.

THE CHOERA IN RLUSSIA.—Russian advices, received on Wednesday, *vid* Germany, state that the epidemic continues prevalent in Moscow, without, however, having yet developed any particularly malignant features. From the 17th of October the number of cases gradually declined. After the lapse of five days it rose once more. Up to the 25th of October (from the 30th of September), the number of cases amounted to 556, and that of consequent deaths to 167. The intelligence of the last week from the other parts of the empire visited by the pestilence is equally favourable. The epidemic, throughout, presents few malignant features.

Sudden deaths appear to multiply in Paris. M. Tschann, the Swiss Chargé d'Affaires, died suddenly on Monday morning. These occurrences, and the prevalence of the *grippe* (influenza), which rages at present in the French capital, recalled the recollection of similar events before the arrival of the cholera in 1832.

INFLUENZA.—This epidemic is extensively prevalent in Liverpool at the present moment, the juvenile members of the community, especially, having suffered severely from its attacks. Almost every family has some member or members afflicted by the disorder, and the medical gentlemen of our town have, in consequence, been kept in constant employment. Fortunately, the disease is of a mild character, usually yielding to judicous treatment in a few days. The disease seems prevalent all over England and France. In Edinburgh it has been so universal that almost all the seminaries, including the High School and new academy, have been closed in consequence of the non-attendance of the youths affected.

INFLUENZA.—Paris has been invaded with an epidemic of bronchitis, which the French denominate "grippe," but which at present does not bear the same characteristics as the influenza of 1831 and 1837. A great number of the population have been seized with it, and in many cases it has proved fatal.

KING'S COLLEGE HOSPITAL.—Some idea of the extent of the prevalence of influenza may be formed from the great increase of out-patients at the above hospital during the past two weeks. Many days little less than 800 apply, and on one occasion (Tuesday last) upwards of that number received medical treatment and medicine from the dispensary. The attendance of women and children on the same day was 250, of whom the larger proportion were suffering from the prevailing epidemic.

GATESHEAD DISPENSARY.—Mr. Samuel Wilson, house-surgeon of the Gateshead Dispensary, died of typhus fever, on Wednesday last, at the early age of twenty-eight. He was also one of the secretaries of the Gateshead Mechanics' Institute. He was of a modest and retiring disposition, and of studious habits. In the discharge of his professional duties he was faithful and assiduous, and ever ready, in the warmth of his heart, to exceed the requirements of his office, if he could thereby restore the health or soothe the pains of the afflicted poor. By the officers and governors of the dispensary, by the patients who have enjoyed its advantages, and by every one connected with the Mechanics' Institute, his death is sorely lamented. The sorrow of his more immediate friends we need not attempt to describe. His remains were interred in the St. Edmund's burial-ground.

HUDDERSFIELD CHURCHYARD.—An eyewitness states that he recently attended a funeral at the parish church of Huddersfield, when he was astonished to find that, in order to dig the grave in which the corpse had to be interred, no fewer than seven coffins had been cut through to effect the purpose.—*Globe.*

EPIDEMIC IN THE NORTH OF SCOTLAND.—During the last two weeks an epidemic of a most unprecedented and remarkable character has prevailed throughout the north of Scotland. It began in Dundee, and then swept over the whole of the east coast until it reached the extreme point of Kinnaird's-head, when it took a westerly direction, and is now extending along the shores of the Murray Frith, and inland through the

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lower districts in the direction of Huntly, Keith, Elgin, to Inverness. It affects the system first by pain in the throat; then follow headache, sickness, with expectoration of a dark bilious-looking substance, and general debility all over the body. In the city of Aberdeen to such an extent did this epidemic prevail last week, that for one or two days University and King's College—now in session—was closed; at Marischal College and University half the students were ill; at the Grammar School the same proportion were afflicted. At Gordon's Hospital, out of 150 boys, 55 were confined to their beds. The West-end Academy had to be shut up for a few days; and amongst those who are able to attend the public schools there was nothing to be heard but the incessant cough, as if the pupils were breathing an atmosphere of the most pestilential kind. On Sunday the churches and chapels were half empty, and so general had the epidemic become amongst the clergy, that supplies for several of the pulpits had to be got from Edinburgh and other places in the south. At Montrose, the epidemic has been equally alarming. One school was short 65 scholars; another 60; a third 50, and so on; the general deficiency in the muster in seven public schools being 350 scholars, and the total deficiency in all the schools 810 scholars. Some of the public works have been stopped for want of hands, and it may be said that in every family in these districts some one is ill. The weather, which had been damp and rainy, was considered to be the principal cause of the disease. We are glad to hear that very few deaths have occurred.

Sanitary Condition of the City of Edinburgh.—The Lord Provost and magistrates have issued a proclamation in reference to the prevalence of fever, which, it is stated, is "greatly aggravated and spread by the nauseous effluvia arising from the filthy and unwholesome state of many of the dwelling-houses and of the lanes and closes leading thereto, and by the accumulation of fetid matter in these places;" and calling on proprietors, factors, and others to cleanse houses, and on owners of accumulated dung to remove and discontinue these and similar nuisances. This is a movement in the right direction, and calculated to be useful. The monster evil, however, of which Edinburgh has to complain—the want of drains—remains intact. Judging from certain statements, it might be supposed that the authorities had hitherto done nothing to arrest the progress of disease. But this is not the case. In the months of June, July, August, September, and October, twenty-six men were specially employed in removing filth, and also in whitewashing houses occupied by the poor in closes in the West Port, Grassmarket, Cowgate, High-street, and Canongate; who cleaned 4345 rooms, closets, stairs, passages, cellars, and areas. Besides these, about 700 apartments were fumigated; and the disinfectiug process is in daily operation wherever it is reported fever has appeared. The kirk session of Greenside have recently had men employed in the poorer districts of that parish in removing offensive matter from cellars, and in cleansing houses, passages, and stairs; and the inspector of cleaning has supplied a number of poor persons with lime and chloride of lime to clean their houses themselves. Then, the authorities in the Canongate have a number of men engaged in the work of purification. All this is right and proper in its way, but nothing effectual can be attained so long as there is scarcely a close in Edinburgh privileged to have a drain, and while the causeway or pavement of a large number—from the state of the adjoining property—remains in its present disgraceful state. Till more extensive and more summary powers are obtained from the Legislature, it is difficult to see how any permanent improvement can be effected. Every close, however, in Edinburgh is swept at least once a day. It is, therefore, a mistake to suppose there are accumulations of filth in the closes and lanes of the city, if dung from stables, cow-byres, and a few piggeries is excepted, and which is at present specially protected, as private property, by act of Parliament. No doubt medical authority may compel the removal of cow, horse, or pig dung, if the particular accumulation is stated to be prejudicial to health, but there is no authority to prevent new accumulations being commenced next day; and this is a practical difficulty not easily surmounted. Piggeries have of late decreased considerably. There are still one or two of an offensive kind, but, unless complained against and proved to be a nuisance, there they remain. In the village of the Water of Leith two of the largest proprietors (the Messrs. Walker, of Coates) have resolved to extirpate piggeries from their property, and have already removed a great number; other proprietors are likely to follow the example. Thus, even agitation on the subject has had a beneficial tendency.

The Yellow Fever in New Orleans.—The lists of the names of those who died in New Orleans of the yellow fever, from the 5th of July to the 22nd of October, occupy two pages, or fourteen columns, of the *National* of that city. Total number of names, 2544. Of these 240 were Americans, 238 unknown, and the remainder English, Irish, French, German, Spanish, &c.—*New York Herald.*

The West Coast of Africa.—We regret to hear that several fatal cases of yellow fever have lately occurred on board the Siren, 16, Commander Chaloner, on the west coast of Africa. The fever was either brought on board from the Banana Islands, or was generated in boat-service in the river Sherbro, on the coast. The first-lieutenant of the Siren, Lieutenant Probert, has died, and three of the crew. Three others, who, as a prize crew, had been on shore at Sierra Leone, also died on board the Siren, making seven victims within a very short space of time. The last advices from the Siren stated that she was on her way to Ascension with ten more cases of fever on board, two of which were expected to prove fatal.

West Coast of Africa.—Mr. W. F. Daniell, a gentleman deservedly well known by his numerous contributions in this and other journals, on the medical topography of this pestilential climate, has just been appointed staff assistant-surgeon, and is about to proceed immediately to the former scene of his useful labours.

Poisoned Wells.—Any one passing Richmond-terrace, Clifton, during the last week or ten days, must have remarked the long string of doctors' carriages drawn up in the neighbourhood. The reason for this formidable display was the existence of illness in almost every second house, the inhabitants of which were afflicted with gastric fever. Nearly a whole school of young ladies were lying down ill at the same time, and there was scarcely a family which had not some of its members sick. It was not, however, until one death took place, and several were in imminent danger, that the cause of this extensive illness was discovered, when it turned out to be produeed by the use of a spring which supplied the place, and whose waters had been imperceptibly poisoned by a sewer breaking into it, and so greatly vitiating their character as to cause gastric fever in every family using it! On being found out, of course the evil was remedied, but not before much mischief had been done, and the necessity both for a pure supply of water and an improved system of drainage shown.—*Bristol Times.*

Alleged Specific for Hydrophobia.—At the late Scientific Congress, at Venice, Dr. Barozzi Delviniotti read a paper in which he said the method for the cure of hydrophobia consists in the internal administration of the bark of the *Cynanchum erectum* of Lynnæus (otherwise called *Marsdaria erecta*), pulverized and mixed with equal proportions of the powder of a fly called by zoologists *Myriatis variabilis*. The effects of this drug are so unfailing that the monks, on communicating its composition to Professor Landerer, offered him at the same time a catalogue of 10,000 cures, many hundreds of which had been effected before the eyes of those then present. It is administered with equal success as well before as after the appearance of the malady. Professor Landerer had assured Dr. Delviniotti that he had himself seen several patients, previously unable even to look at water without spasmodic convulsions, gradually grow calm after the first dose of this remedy.

Chloroform—Its Application to Animals.—A few days ago, an interesting and successful experiment with this agent was tried on a lame horse, belonging to Mr. Reid, Drem, East Lothian. Dr. Robertson and Mr. F. Imlach, from Edinburgh, Dr. Lorimer from Haddington, and others, were present. About two ounces of the chloroform were poured on a piece of flannel cloth, below which was a sponge, the whole being placed in a tin case, which was tied over the horse's nose, and surrounded with a flannel bag. In three minutes and a half the animal fell over, and in five minutes it was perfectly insensible. When in that condition, Mr. Cockburn, veterinary surgeon, Haddington, performed the usually painful operation of cutting the nerves of sensation in both of its fore feet. On cutting the second nerve, the poor beast made a slight movement, showing the chloroform was beginning to lose its effect, but a second application of another ounce allowed the other two remaining nerves to be cut without a quiver. In twenty-five minutes from the commencement, the animal was again on its legs, now perfectly sound. Had it not been thus reduced to insensibility, it would have been bathed in perspiration by violent struggling from intense agony; while in this case there was not a turned hair on it, the operation, too, being much more easily and quickly performed.

The Substitute for Ether in Paris.—Some experiments with the chloroform were made for the first time in Paris by M. Velpeau, at the Hospital of the Charité, a few days ago. A woman from twenty-five to thirty years of age, suffering from a cancer of the breast, was made to inhale about a dozen drops of the chloroform on a handkerchief. At first she was merely affected with giddiness, but at the end of four or five minutes she fell off into a sleep. M. Velpeau then made some superficial incisions in the breast affected, and which is subsequently to be amputated. He next cut off a large wart from her hand with a bistoury; and the wound thus made, when bleeding abundantly, was deeply cauterized. The patient awoke in about two minutes, without having felt anything, and without any of that agitation which characterizes the awakening from ether. The chloroform was next applied to a woman of about fifty years of age, who had to undergo the opening of an abscess in the breast, and with precisely the same effect. The following, however, is a more interesting case, although the results obtained have been partly negative:—A man of thirty yeas of age, who was attacked with tetanus two days before, in consequence of a wound in the finger, was made to inhale ether several times without effect. At last the chloroform was tried, and at the end of two or three minutes he became insensible, without any previous agitation. The inhalation was continued about a quarter of an hour, and the sleep lasted about double that period. The muscles, which were previously the seat of tetanic convulsions, soon fell into a state of complete relaxation; the mouth opened naturally; the muscles of the trunk became supple, and the breathing was easy. When he awoke his state was evidently much improved, but after a time the convulsions recommenced. Several new attempts to make him inhale were made, and each time in the same way, with this difference, that on each successive trial the contraction of the muscles yielded less completely to the stupifying influence. On Friday his state was decidedly worse; the tetanic convulsions had reached the lower extremities, and it was thought likely that death would promptly end his sufferings. It is evident from this case that chloroform exercises a manifest action on the convulsed state of the muscles; and the persons who were present at the experiments were struck with the fact that the patients took it with perfect calm.

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APPOINTMENT.—On the 18th instant, the electors of the Travelling Fellowships appointed James Claudius Paxton, M.B., to be one of the fellows on that foundation, in the room of the late Dr. George Bell.

STATE OF THE PUBLIC HEALTH.—Influenza has been more prevalent in Edinburgh during the last few weeks than it has been for many years past. Although it has affected, more or less, nearly one-half of the inhabitants, it has fallen with especial severity on the young, many schools being in consequence obliged to be shut up. Dr. Stark, who has been collecting facts for the statistics of this disease, informs us that he has already got returns from various public and private schools, from which it appears that of 4925 children on the roll of the schools, 2213, or 44 per cent., were absent in consequence of this complaint on the 29th of November. A far greater proportion of the younger children were confined than of the older; for while in several schools the young children suffered in the proportion of 70 to 75 per cent., the proportion of absences among the elder children did not exceed 30 per cent. From the returns procured, it appears that the epidemic was most severe and general in high or exposed situations. Thus, while the boys in George Heriot's Hospital (on a high and exposed site) have suffered so severely, that a full half (96 boys) were in bed on Monday, those in George Watson's Hospital (on a low sheltered site) have been so slightly affected, that not above five required to be sent to the sick-room, and even these cases were slight. The influenza is clearly epidemic, depending for its origin on the state of the weather. It first appeared in Edinburgh during the thick, foggy, and frosty days of the 17th and 18th November, and attained its maximum of intensity on the re-appearance of the same thick, foggy, frosty weather on the 27th and 28th. This connection with the weather was very marked in some schools, but in none more so than in the Merchant Maiden Hospital. On Saturday, the 27th, before the thick, frosty fog came, only one girl was slightly colded, but by the next day no fewer than 50 were confined to bed.

WILLIAM FERGUSSON, ESQ.—An excellent lithographic portrait, by Maguire, of this distinguished surgeon, has just been published by subscription of the pupils and friends of this deservedly popular teacher, under the superintendence of Mr. Stone, of the Royal College of Surgeons; who, we hear intends publishing a uniform series of medical portraits of those men who are daily contributing to the advancement of medical and chirurgical knowledge. It is a faithful likeness of the original, and highly creditable to all concerned, and a valuable addition to the portfolio of the medical portrait-collector. We understand that portraits of Dr. Todd, the talented editor of "The Cyclopædia of Anatomy and Physiology," and Professor South, the translator of that valuable addition to medical literature, "Chelius' Surgery," will shortly follow the above.

DEATH FROM SUFFOCATION.—On Thursday morning last, as some of the neighbours were passing the door of a small house at Woodside, occupied by Dr. Mackie, their attention was arrested by the emission of smoke from the keyhole of the door and other apertures. On opening the door a most melancholy spectacle presented itself; before a still-burning fire lay the remains of the doctor. It is conjectured, as he was only slightly burned, that having gone to bed early in the morning, taking along with him his tobacco-pipe and some lucifer-matches, as was his practice, he had left an unextinguished match among the bedclothes, whence, it is thought, he had sprung from a sense of suffocation, and was found as described. He has practised nearly thirty years in this and the neighbouring localities, and his death will be lamented by many of the poorer classes.—*Aberdeen Journal.*

OBITUARY.—On the 2nd inst., suddenly, at his residence, No. 16, Weymouth-street, Portland-place, J. S. Campbell, M.D., aged 49.—Nov. 30, at Warrington, J. Kendrick, Esq., M.D., F.R.S., and senior physician to Warrington Dispensary, aged 77.—Nov. 28, at Manchester, in his 80th year, Edward Holme, Esq., M.D., F.L.S., president of the Manchester Literary and Philosophical Society, the Manchester Natural History Society, the Chetham Society, and for more than half a century intimately connected with the literature, science, and mental advancement of that community.—On the 2nd inst., in Hamilton-square, Woodside, aged 67, John Hughes, Esq., M.D.—On the 7th inst., in Clifford-street, in the 53rd year of his age, Robert Liston, Esq., F.R.S.

APOTHECARIES'-HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise from the Court of Assistants on the 2d instant, viz., Messrs. Edward Malton, Glastonbury; Thomas William Crosse, Norwich; and James Horneblow Williams, West Stockwith, Bawtry.

MORTALITY TABLE.

For the Week ending Saturday, Dec. 4, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	2454	1046
SPECIFIED CAUSES...	2446	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	638	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	144	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	231	157
Diseases of the Lungs, and of the other Organs of Respiration	994	333
Diseases of the Heart and Blood-vessels.....	77	34
Diseases of the Stomach, Liver, and other organs of Digestion	113	74
Diseases of the Kidneys, &c.	14	9
Childbirth, Diseases of the Uterus, &c.	19	14
Rheumatism, Diseases of the Bones, Joints, &c. ...	17	7
Diseases of the Skin, Cellular Tissue, &c.	6	2
Old Age.....	165	65
Violence, Privation, Cold, and Intemperance.....	28	29

TO CORRESPONDENTS.

THE "MEDICAL TIMES" may be procured by an order on any Newsman or Bookseller, or it will be sent direct by post from the Office of the "Medical Times" to Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Pound Five Shillings IN ADVANCE, which will free them for Twelve Months. Half-yearly Subscription, 15s.; Quarterly, 7s. 6d.

"Mr. E. J. Potter"—We cannot engage to insert articles without having an opportunity of judging by our own inspection of their adaptation to the columns of the *Medical Times*.

"Peto."—Our correspondent has erroneous views with regard to the subject on which he writes. Some standard authors ought to be consulted by him.

"M. B., 1846."—The Apothecaries' licence is necessary in order for the candidate to become eligible for the appointment. Moreover, it is a safeguard in practice against prosecution, private individuals having the power of laying an information as well as the society.

"S. T. Hinton, M.D."—The subject shall receive our early consideration, and a private note forwarded containing our opinion.

"Tyro" wishes to be informed where he can obtain pure chloroform, as he is very anxious to try some experiments upon himself and some of his friends. He says, "I have understood that it is an agent perfectly harmless, yet irresistibly powerful, and that it produces the most pleasing sensations." We should advise our correspondent not to engage in dangerous experiments, for the chloroform is not quite so harmless as he seems to think. We must decline, therefore, giving any advice where the genuine article may be obtained, as none but medical practitioners should use it. If, as our correspondent states, he is articled to a surgeon, he may employ his time better than "experimenting upon himself and friends" with a powerful anæsthetic agent.

"A Student of St. Bartholomew's."—We must decline publishing these very pungent remarks upon hospital management. Will our correspondent favour us with his name in confidence?

"Erinensis, Dublin."—The work on Fractures was reviewed in our pages about four months ago; it contains much valuable information.

"An Army Surgeon" writes us that the degrading duty of branding deserters still belongs to the surgeon, and suggests that upon each occasion when he is required to perform it he should plead ignorance of this department of surgery.

"W. P."—Qu. (1).—If the subject is distinctly stated in the indentures the master cannot refuse. (2). It is not requisite. (3). There are particular times when dissection can be carried on without interference with the other departments of study. (4). The attendance upon lectures ought to be regular.

"Mr. W. Smith, King-street, Belper."—We hope to be enabled to comply with our correspondent's wishes next week, though we have a large number of articles standing over for insertion.

"Mr. J. Jones, Llanfair, Montgomery."—The article may be relied on, and is used very extensively by many intelligent practitioners. We have not received the communication referred to, or it would have been acknowledged in the Notices to Correspondents.

"Mr. J. E. Lander, Shiffnal."—We think Mr. Stone, at the College of Surgeons.

"Mr. A. Markwick, Langham-place."—The account in the first part of the communication shall be attended to. A private communication shall be transmitted shortly.

Dr. Bushnan's note containing the anecdote in reference to Dieffenbach came too late to be inserted with his communication, which appeared last week. It is as follows: "When Dieffenbach was sent for in a great emergency to perform a most serious operation upon the Queen of Prussia, the King said to him at the moment of commencing, "Remember, M. Dieffenbach, you are about to operate upon your sovereign." "On the contrary, Sire," was the reply, "I shall endeavour to forget she is a queen, and to remember she is a woman."

"Mr. Thomas Batten, Colsford."—The subject shall receive an early notice from us.

"Mr. Robert Hepburn, 8, Davies-street, Berkeley-square." We cannot find the name in the "Medical Directory" for London or the country.

"A Member of the Pharmaceutical Society."—It is not our practice to offer an opinion upon an article without having tested its virtues. The letter is an advertisement, and cannot be inserted as such.

"A Member of the Medico-Chirurgical Society, Edinburgh," informs us that Dr. Simpson has recently tried the chloroform upon a young woman, a patient in the Maternity Hospital. He says, "that the duration of extent of the labour-pains were watched, and the anæsthetic agent carefully employed. The result was that the patient appeared to fall into an easy slumber; the pulse and pains, however, continuing the same as if she had not taken the chloroform. The labour proceeded to a favourable termination, and twins were born. In this case eight ounces of chloroform were used, and the patient kept in a state of insensibility for thirteen hours, without a single symptom occurring of an unfavourable kind." This agent has been used by many surgeons, not only in London but in different parts of the country, and all with whom we have had any communication speak of it as very superior to ether, though in some cases sickness and headache have followed its use.

"A Student, King's College."—The information can be obtained by applying to the beadle at Apothecaries' Hall.

"Caustic."—The publication of the letter would subject us to an action.

"M. D., Bristol."—Admission can be obtained to the library of the College of Surgeons, without membership. The library is certainly a very excellent one, and, according to Mr. Lawrence's opinion, not equalled by any other in the kingdom.

"A Reader from the Commencement."—The evidence was unavoidably postponed to make room for other matter; we have resumed it in the present number, which brings Mr. Lawrence's evidence to a close.

Letters and communications have also been received from Mr. Lloyd, Mackynlleth; Dr. Inman, Liverpool; Mr. Ranesdale, Wigan; Dr. Carson, Edinburgh; Mr. Millman, New Galloway; Dr. Kennedy, Woodhouse; A Reader from the Commencement; M. D., Bristol; A Student, King's College; A Member of the Medico-Chirurgical Society, Edinburgh; A Member of the Pharmaceutical Society; Mr. Robt. Hepburn, 8, Davies-street, Berkeley-square; Mr. Thos. Batten, Colsford; Dr. Bushnan; Mr. A. Markwick, Langham-place; Mr. J. E. Lander, Shiffnal; Mr. J. E. Jones, Llanfair, Montgomery; Mr. Wm. Smith, King-street, Belper; W. P.; An Army Surgeon; Erinensis, Dublin; A Student of St. Bartholomew's; Tyro; S. T. Hinton, M.D.; M. B., 1846; Peto.

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No. 429. **SUMMARY.** Dec. 18.

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ORIGINAL LECTURES.

INAUGURAL ADDRESS

DELIVERED IN

ST. THOMAS'S HOSPITAL

By N. SIMON, Esq.,

ON ASSUMING THE CHAIR OF PATHOLOGY.

On Wednesday evening last N. Simon delivered an inaugural address on the occasion of assuming the duties of the chair of Pathology, now first established in St. Thomas's Hospital.

The lecturer, after referring to his personal feelings in his new relationship, thus proceeded to express his views on the subject of his future instructions and investigations:—Considering the circumstances under which I appear in this place, it appears to me that I shall best consult the interests of the sciences which I profess if I occupy your attention with a few remarks on the general philosophy and method of the science of pathology; those principles which unite it to all the other sciences of matter as a branch of one great common trunk. Firmly assured that no real, no effectual progress can be made in any one science otherwise than by a logic and method common to it with all the others, I propose testing the state of pathology by those principles of philosophy which have carried other physical sciences to their present high position. If chemistry possesses a numerical precision, if astronomy boasts of certitude, if a true science of physiology be dawning, surely these results are referable to no casual or arbitrary process of intellect, but are the due effects of an activity proceeding according to a fixed and definite law. For the profit of mankind Bacon lived not vainly; for two centuries his genius has been present in men's minds, like the clear horizon at daybreak, leading from the chaos of undisciplined observation to the sublime possibilities of inductive philosophy. If science has turned at any time to the idols of fancy, her empire has been then shaken till, forwarned and terrified, she has recollected that, like the figure which the King of Babylon saw, having a crown of gold and feet of clay, she must fall by the incongruity of her materials. It would be an instructive process to travel, on the present occasion, over pathological literature, and test its value at each epoch by the rules of strict inductive science, were such a review possible within the limits of our time. It will be sufficient for me to deal with the present condition of our science, and to inquire and elicit how far, by observations on the one hand, and inferences on the other, it may claim to be regarded as an inductive philosophy. It was Bacon's merit, that while throughout the whole extent, and in the universal spirit, of his writings he referred men to observation and experiments as the true source of cognitions, he never ceased to tell them that observations and experiments form but a process of putting questions to nature, that to suggest these questions is half the business of philosophy, and that to cultivate the faculty which imposes upon the understanding these tasks is the first business of the philosopher. To abstract, generalize, compare the known with the unknown, these, Bacon knew, are instinctive tendencies of the mind, but for which the impressions of the senses would never rise to the lowest level of ordinary experience. The true philosopher has learned to subject the perceptive faculties of the mind to the constructive. A vague curiosity is not the guide to the stores of philosophic truth, and those who are led by such an inducement are only groping in the dark. Glance, gentlemen, at the records of knowledge, and you will find that what is here enunciated as philosophic truth, is illustrated by historical facts. While eliminating what is casual from its entanglement with what is essential, while comparing phenomenon with phenomenon, while forming a theoretical connection between cause and effect, all the great augmentors of knowledge have toiled to obtain definite answers to definite questions, which derived their origin from the laws of the human intellect. I may state that I propose considering the condition of pathology in following its interpretation of phenomena, the doctrine of causes which it announces, and the principles of the classification of diseases; and it may be well first to remark, with respect to the subject-matter of science, that as physiology treats of the condition and phenomena of the living body in its ideal state of perfection, pathology professes to treat of whatever manifestations are observed of declension from that state, sometimes appearing as mere changes in the formation of a part; sometimes in the material productions which are taken cognizance of by chemistry and anatomy, such as in diabetes, cancer, and cataract; sometimes their manifestations take the form of abnormal motions; at other times in certain changes, as insensibility, pain, &c. All these are the materials of the pathologist; his first object is to interpret the facts of disease, and his interpretation bases itself upon the analogies of health: he has to render morbid phenomena intelligible to himself by terms denoting specifically their similitude or contact to healthy processes. When he speaks of hypertrophy of the heart, he designates the kind of diseased action that is going on; so, when he speaks of diabetes, he characterizes a normal secretion, plus sugar. In thus speaking of the several diseases he half expresses to the physiologist the direction in which their causes may be sought for. In other cases the formula is less easy of discovery, but, being found, is of more striking application. Look at the case of congenital malformations: not only do we find Martin Luther meeting in his way an ill-gotten calf, drawing inferences from that fact of the approach of the millennium, but even in our own day we hear of monsters; and now observe the process by which we have been led to the solution of the matter, and have been able to bring these variations from normal conditions within intelligible laws. The great conception which was present to the mind of Hunter has been established, that the embryo of each higher animal, in the progressive phases of its development, passes rapidly through the conditions of the creatures inferior to it. It is at once easy to account, by the light of this fact, for the abnormal form of such animals at birth; it is seen, that if the development of the embryo be stopped at any stage of its intra-uterine existence, one of its transient shapes will be fixed in the animal born as a permanent and specific deformity. To the discovery and determination of this law we owe it that all who are conversant with the history of the embryo of particular kinds of animals are able to refer any individual deformity to a definite period in the intra-uterine existence. It was under the apprehension of such a truth as this that Lord Bacon reported his followers to be patient and attentive observers, even of the apparent extravagancies of nature, in which his penetrative mind believed the influence of settled and determinate laws. Another instance I might mention, in the discovery and applications of the cell theory. Ten years ago, minute structural anatomy had no existence: scattered observations were all that occupied the place of what has since advanced very far towards the character of science. But here the great importance of a guarantee of the purity of the intellectual process in a sound logic and method is exhibited in a wrong application of the great discovery last named. The science of that discovery is, that all growth consists of cell development; that the cell is the universal form in which growth shows itself. Now, I have heard cell and cellular growth spoken of as if they were the *differentia*, instead of the *genera*, of growth. I have read in a work, otherwise talented, a suggestion of the similarity of the morbid action of cancer and typhus, on the ground of their products. No doubt in both we have similar growth, but to infer thence a relation of morbid action, is, it seems to me, as if one should expect similar results from the action of arsenic and sulphur on the system, because both are crystalline in their structure. To remain satisfied with the mere cell is, in my view, as unphilosophic as if the chemist were to accept the doctrine of crystalline formation as the ultimatum of his science. Next in order to the means of determining the nature of phenomena, as present in a given time and related to each other, is the method of discovering their causes. This is the function of the philosopher to which he attaches the highest importance, and it is also that by which the laity are most apt to measure his attainments, for the ignorance of natural causes has been in all ages regarded as the great hinderance to physical well-being. It is believed that this knowledge of the philosopher exempts him from the fears which harass the minds of other men; while the fears and apprehensions with which we ourselves approach disease are in proportion to our ignorance of its causes: as we miss them we are alarmed, as we see them we are encouraged. How far do we

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possess, in respect of disease, that privileged insight into causes which alone can give stability to our practice? It would be difficult in polite language to find phrases sufficiently powerful and expressive to stigmatize according to its merits the state of physiology as it existed at no very distant period. How could it exist, indeed, as a science, or exist at all, save as a dream of the fancy? The great improvement which has not only commenced, but is now in rapid progress, seems but a small part of the results of the wonderful and invaluable direction given to investigation by John Hunter. For our conviction of the sufficiency of the observed processes and phenomena of disease, as causes of particular morbid states, we have no longer *post hoc, propter hoc*. We want to know what are the intermediate connections and closest successions of the changes which we are able to detect. We know that causes of disease choose their peculiar organs of manifestation with as decided a preference as governs the combinations of chemical bodies. We know that, upon the introduction of noxious agents into the blood, all parts of the body, all its organs, are alike exposed to their influence; but how different are the effects which they produce! Opium acts on the brain, cantharides on the kidneys, arsenic on the stomach. In the abdominal flooding of cholera, in the shrivelling of the present epidemic, we see the human body yielding uniformly under a common cause, similar phenomena in similar organs, with as much constancy as is observed in the changes of brute matter. Again, while we find an infinite variety in the influences from the anatomical world by which the human body is affected—while we find that the causes of disease are innumerable, chemical or mechanical violence, infection, variations from excitement of organs, morbid poisons, &c.—a remarkable contrast appears between the variety of causes on the one hand, and the singleness of effects in the same organs on the other. As excitability is the token of animal life, so also it is by this function that life becomes participant in diseases; and as excitement is the only language in which life answers the solicitations of the outer world, so, whatever may be the cause of disease, the organ can only manifest one kind of effect. If to this law there are some apparent exceptions, let it be borne in mind that they only exist in respect of diseases of which our ignorance is more manifest than our knowledge. The influence of these two laws in purifying our theories has been immense. Look at the imperfections of our knowledge, up to a late period, of *sympathies*. Every one can remember when sympathies were spoken of as ultimate facts, which no one thought of explaining. When two organs suffered together, they were said to sympathize, and the word got to be applied at last to the most accidental concurrence of disease, and men thought they were progressing to an explanation of a fact, while they were really only saying that two parts suffered at the same time. In the imagination of many who used it the phrase was the enunciation of a law—a remarkable instance of what Bacon calls *idolum fori*: for why should there be in hip disease, for example, any pain in the knee or elsewhere but in the hip? The course of improvement has been the following:—First of all were set out of the list of sympathies those cases where disease propagates itself by mere contact of tissues. These sympathies, if sympathies they have any right at all to be called, are only so by direct contact; and it was then seen that, as distinct parts of the body were united by the blood and nerves, so there are humoral sympathies and sympathies depending upon the nervous chords and centres for transmission and reflexion. When we see so many various organs suffer together in constitutional syphilis, when we see a thousand spots of uniform character upon the surface of the skin in smallpox, we are forced in each case to attribute these effects to one influence pervading the entire system, namely, the blood which supplies all its parts, and on which all have dependence. With respect to the classification of the facts and appearances of morbid conditions of the body I have first to observe, that though by no means the chief object of pathological studies, it furnishes to the inquirer a valuable standard by which to measure the success with which they are pursued. "When man is able," says Lord Bacon, "to call the creatures by their true names, then shall he again command them as he did in his first state." I understand, by a classification of disease, something more than a mere arrangement for convenience. There have been men in our profession who have believed all the mysteries of disease to be solved when they have cited their names in a dead language rather than in their own tongue. Now, gentlemen, the scientific classifier is to build his arrangement on the deepest analogies of nature; and no arrangement deserves to be dignified with the name of a system unless the principles on which it proceeds offer as unity the essence of the subject to be classified. A system presupposes a unity that shall pervade all the parts of the scientific structure, giving coherence to the whole. When this unity is absent, the metaphors and fancies of the human imagination become substituted for the true types of nature. It would be impossible to over-estimate the value to our subject of this consideration, or to state too strongly its necessity; but to realize it in our labours and studies we must be conversant with a more strict and rigid logic than the popular one. I rejoice in being able to refer to the published works and oral teaching of one whose authority I cannot too fully acknowledge. I mean one who, in the councils of our profession, is recognised by his wisdom, dignity, and eloquence; whose universal acquirements forbid our right to claim more than a part of his European fame; who still, in the lessons of his vast experience and consummate judgment, prolongs the memory of bright recollections, and enables us to boast in the senior surgeon of our hospital the nephew of Cline. According to the principle I have laid down, I do not hesitate to affirm that we have no true system of pathological classification. Lord Bacon deprecates the too early systemization of knowledge; he notes that a young man, when he knits and settles into shape, seldom grows to further stature; and knowledge, which, while existing in the form of aphorisms, is in growth, when moulded and shaped into a system, no more increases in bulk and substance. It may be, however, well to observe the course in which the generalizing faculty may be best employed. Suppose it were proposed by some one to classify all diseases, according to the respective colour of the skin which exists concurrently with each; the advocate would maintain his plan by plausible arguments, he would show how simple and natural his method was: for are not all colours fixed and determined by nature? He would point to his diagram, with its white, red, yellow, and green columns, into which would be distributed jaundice, scarlet fever, the measles, the green sickness, and so on, according to their chromatic analogies. Now, in the manifest absurdity of such an attempted arrangement, what is the flaw which strikes us? Nothing in the chromatic details: in inflammation is red, bilious patients have yellow skins; but it professes to answer the requirements of reason, and to offer a unity; and to this demand its answer is irrelevant, for what has colour to do with life? With respect to the classification of the phenomena of the human body in health or disease, the only key lies in the thought that all life is a power, and that any system of arrangement will only be practicable when it can be exemplified as a scheme of possibilities included in the principle of life. As in the problem of pathology there are two elements, impressions from without and subjective excitability, so a twofold principle is to be sought for in accounting for the morbid conditions of the body. The investigation of this principle is often rendered very complicated by the remoteness of the primary exciting cause from the phenomena. It often happens that the symptoms under which a patient sinks are but the remote results of one exciting cause—but successive links in the chain of causes by which you are to ascend to the first processes of disease. I may instance the long series of causes and consequences in a case of dropsy or pleurisy. In some respects, subordinate to this subject, I may just mention the principles of the concurrence or non-concurrence of particular morbid phenomena, by which we may arrive at a knowledge of what diseases are, and what are not, compatible with each other. In respect of such as are incompatible, important distinctions may be drawn. First, there is John Hunter's dogma, that no two causes can be in operation in a part at the same time: a doctrine which seems, so far as it is true, to imply a preoccupation of the energies of life by the first disease. Some diseases seem to imply a polar antagonism to each other: such an opposition exists between tubercular disease and cancer. I need not tell you the importance of such opposition to throw light upon disease. Here, gentlemen, I pause, conscious of the infinite extent of the subject before me, feeling at every step how inadequately I can convey my sense of their immensity and interest. Suffice it if I have exemplified the character of that discipline and logic of observation by which only pathology can claim kindred with the universal philosophy. To my pupils I would suggest the motives which may urge them to exertion in this pursuit. First of all I have to refer you to its transcendent interest as an object of inquiry. The human mind can find no lasting satisfaction in a succession of unexplained phenomena. The most beautiful material objects of nature—the midnight sky with all its glories, which, from the time it was gazed on by the Chaldean, has riveted men's minds by its grandeur and sublimities, as is attested by the names of the planets and the fire-worship of various ages and countries—have their impression elevated as well as softened, as, through the discoveries of Kepler and Newton, it is known that they fulfil their courses with all the strictness of law. And, if such be the effect of increased knowledge of objects of natural beauty and loveliness, how much more so of that which is repulsive and awful while unexplained! How great a relief and satisfaction to find that disease and degeneration are no insoluble problems!—to find that the laws of life account for all; that nothing is abnormal; nothing, in part or member, foreign to the intention of the whole! But I do not rate highest this attraction of the science I profess. Your success in the art of prolonging human life and in lessening human agony will, *ceteris paribus*, be commensurate with your pathological knowledge. I am sure that an appeal to the experience of those whom I see present would lead to a corroboration of my assertion. The chief motives which should induce diligence in this department of art are included in those which tend to your advancement in study generally. I cannot, however, forget to remind you that the course which I invite you to take with me is no beaten track of a traditional school, but that the science we have to study is only in its first dawn; and the terms of my mission impose on me as a duty the institution of original researches to determine the processes by which disease comes on, or is removed. To co-operate with me in these researches, and to go before me in their vast results, I now strenuously exhort you. Industry, exerted in this direction, cannot possibly fail of its reward. If you have energies within you claiming a worthy occupation, if you have aspirations and a care for something more than mere sustenance, how can those energies be better bestowed than in alleviating the ills of human nature? I affirm the supreme dignity of the pursuit; to be a successful interpreter of Nature in this part of her dominions, is to confer a benefit on the world which will last as long as the human race itself. When, with the son of Sirach, you would "praise great men and your fathers who begat you in knowledge," where are the names at which the memory rejoices? Mark them, while their spirits seem to pass to and fro

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'twixt earth and heaven, as the angels in the patriarch's dream, laden with new burdens of blessing. Like Jenner, to stay the pestilence; like Watt, to remove the barriers of time and space; like Dante or Shakspere, to reveal the depths of the soul, or elevate and purify the affections; like Newton, Harvey, or Hunter, to be the minister and interpreter of Nature; like Plato, to legislate by reason is to achieve immortality. Doubt not, for a moment, that the great men whose names I have quoted had their reward in the clear foreknowledge of the veneration and love which should awaken at their name throughout all succeeding generations. This was their secret support in axious vigils; this gave them constancy, dignity, and calmness. In the midst of their anxious toils they have seen the continuity of human life flow down before them like a mighty river going to its outlet; they have read their destiny, and anticipated their reward. They have foreseen themselves incorporated into the organism of the human spirit, and in their silent chambers have consoled themselves with the thought, that they would be parts of humanity for ever.

The Hebrew legislator stood upon Mount Nebo; his feet were never to press the verdure of the promised land. He remembered the arid wastes, the burning sands, the bitter waters where he had striven with the huckstering race, careless of his inspiration, even when he struck for them the rock, and the waters flowed out, or when he stood between the quick and the dead, and the plague was stayed; but what were these things to him now? The plain of Canaan lay stretched beneath his gaze; yet it was not to his outer eye alone that the prospect was cheering: he penetrated into the futurity of the people for whom he had done and suffered so much, to prepare them for happiness; he saw the holy city, with its temple and its thronging crowds of joyful worshippers; loud on his mental ear swelled the prophetic minstrelsy; but "in the land of his people he had no inheritance: the Lord himself was his portion and his inheritance."

A COURSE

OF

LECTURES ON SURGERY.

BY

SAMUEL COOPER, Esq., F.R.S.,

Professor of Surgery to University College, London; Consulting Surgeon to London University Hospital, &c.

Lecture XXI.

Gentlemen,—Having considered, in the preceding lecture, the effects of heat on the tissues of the human body, we now come naturally to speak of the injurious results from exposure to cold. Cold has often been said to be a merely negative expression, implying the absence of heat; and this is, no doubt, philosophically correct, although we are accustomed to speak of cold as a positive and active energy. Strictly speaking, the term is comparative, and a body is called hot or cold only in relation to the temperature of some other body with which it is compared. Thus, if, while warming one hand at a fire, we cool the other by means of ice, and then plunge both of them into water at the common temperature of the same atmosphere, the water will feel cold to one and warm to the other. In relation to the average heat of the human body, a temperature below 98° may be said to be cold, since at that degree heat is commonly maintained in the system; but a temperature from 13 to 18 degrees lower than 98° is grateful to the feelings and invigorating to the health; and the mean of those temperatures—62°—seems best adapted to the power of the system, to generate more heat to supply the amount absorbed by such a temperature. Some constitutions possess the power of evolving heat in a much higher measure than others, a difference depending to a great extent upon the vigour of the heart and arterial system; and such persons are able to bear without any unpleasant sensations the same degree of cold which is to others a source of uneasiness. The circulation through the small cutaneous vessels, particularly of the extremities, the hands and feet, or in projecting parts, as the ears, nose, &c., is first affected by exposure to severe cold, the proportion of surface exposed to the atmosphere admitting, in those last mentioned, of a more considerable extraction of caloric. You have all remarked the rough appearance of the skin, sometimes likened to that of a plucked goose, which is caused by the contraction of the skin round the roots of the hair, together with the loss of colour which is present when the surface is in a state of natural warmth. You have also observed the livid colour of the nose, ears, fingers, &c.; this is caused by the weakness of the action of the heart and arterial system—the blood, being delayed in its course, does not undergo that change of colour which circulation through the lungs produces, and hence the colour of the parts in which it is stagnated. When this stoppage of circulation becomes total, heat can no longer be evolved, and mortification is the result. This is the process by which parts become frost-bitten. Whether parts can exhibit those characteristics, which we describe under the term frost-bitten, without being first brought from an extremely cold temperature into a warmer, is a matter of dispute. Cold is generally thought to be the predisposing cause, while the exciting cause is the change of temperature. Exposure to cold exerts its influence upon every part of the system; this was convincingly demonstrated in Russia during the last French war; it has also been repeatedly declared in narratives of voyages to the arctic regions. Its effects are seen in the reduced circulation, and consequent diminution of sensibility of parts. The hands become numb and unable to exercise the sense of touch, and a similar condition extends to the entire surface of the skin; the sense of taste and of smell are impaired, when not lost; the nervous system sinks under its influence; the mind loses its control, through the nerves and muscles, over the body; drowsiness and remarkable apathy come on; and, unless roused from this state by another, the person sleeps no more to awake. Many of you have been, no doubt, struck with the vivid illustration of these remarks, furnished in the narrative of Captain Cooke's voyages. Sir James Banks, Dr. Solander, and their companions found it almost impossible to resist the disposition to sleep, and they record that none who slept awoke afterwards.

In the campaigns of the French army in Russia the soldiers were exposed to an intense degree of cold; while marching together in close ranks they were able to maintain, in some measure, their animal heat, but when, from fatigue, they were obliged to leave their ranks, they fell by the wayside and perished on the road and in the ditches of snow, into which they fell. Baron Larrey relates that, from the action of the muscles growing weaker, the men reeled about as if drunk, and at last fell down; almost all who fell thus were found with their faces downwards: they were seized with numbness attended with pain, drowsiness followed, and death rapidly terminated their existence. Often before death hermorrhage from the nose, and involuntary discharge of urine, took place. The skin was not discoloured, nor was there any appearance of gangrene. He also states that before death the countenance became pale, a sort of idiotism prevailed, and sight and speech were impaired or lost. It must not be forgotten, in reading this account, that these men were not only starving with cold but also with hunger, and were exhausted by fatigue. Were I seriously to propose to consider the question, is it possible for a person frozen to death to recover? you would think I was trifling with your time. It has been, however, a matter of controversy with some, whether, in some instances of recovery from the effects of cold, the whole body was not completely frozen. In my opinion, the circulation of the whole body must be completely stopped, and death take place before the whole body can be frozen through. You may read of persons having lain in a frozen state for four or six days, and afterwards being restored to life, but I think in all such cases there have been only suspension of sensation and voluntary motion, &c., and that not even the greater part of the body had been frozen.

But if a person completely frozen cannot be restored, there are many cases of suspended animation arising from cold. The first thing which I would impress on your minds is, that in all these cases you must particularly guard against suddenly bringing the patient into a warmer temperature. Caloric must be communicated to the body in the most gradual manner. It was through a neglect of this important precaution that a most valuable medical officer of Napoleon's army in Russia lost his life. Suffering from severe cold and fasting, they removed him into a warmer atmosphere in the bivouac, and placed him by the fire. The prominent parts and those removed from the centre of circulation were seized with gangrene, which could be seen to spread over his body, his limbs became moist and swelled, and he died almost as suddenly as if from asphyxia.

Many soldiers, Larrey tells us, came to the bivouac, and after remaining a little while, fell down stiff dead into the fires by which they had been standing.

The person should be removed into a cold room and well rubbed with snow, or cloths dipped in cold water. Care must be taken to maintain this treatment a sufficiently long time, for patients recover after long suspension of the functions. On the return of sense and motion, the temperature of the room may be raised, aromatic spirituous applications substituted for the snow, and cordials administered. Warm wine may be thrown into the large intestines. When signs of animation increase, the body is to be placed in a warmer situation and rubbed with brandy. A diaphoretic drink should be given, and the patient well dried and put to bed, to remain there until he begins to sweat.

As I stated that the whole of the body could not be frozen before death, I may as well say that that statement does not extend to insects and fishes. Some of these, after being frozen so hard that you might chop them up with a hatchet, recover. With reference to the injury of a small part of the body by cold, as the nose or scrotum, I may say that, by the gradual communication of caloric, such parts may be recovered.

If you should not use the greatest caution in communicating heat, you will have a very rapid gangrene, which, to use Baron Larrey's expression, will take place before your eyes. In the campaign of the French army in Russia there was a period of intense cold, lasting for five days and five nights, during which Réaumur's thermometer sank 15° below zero; this was before the battle of Eylau, and the men were exposed in the snow to an intense frost; but it was not until the second day after the battle that any soldier complained of an accident; the two armies were opposite to each other, and the men on the *qui vive*. On the second day, however, after the battle, when the temperature had risen to 5° above zero, and a thaw commenced, the men began to complain of acute pain in the feet, numbness, heaviness, and prickings in their limbs, the ambulances were surrounded, and the surgeons were incessantly occupied with applications for assistance. The men, without exception, declared that while the cold lasted they had felt no pain, and that their complaint began with the thaw. In Russia and Germany, it is the practice to rub the parts affected with ice, cold water, and snow, so as to bring them from their actual temperature to that degree next above it, thus introducing the patient to a warmer state as gradually as possible; this treatment is pursued until sensibility and motion return. Such, also, is the course adopted in this country. Owing to the brittleness incident to the frozen state, care will be necessary in rub-

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bing a projecting part, as the nose, to avoid breaking it. When the faculties of sense and motion are restored, brandy or camphorated spirit of wine may be used instead of snow to rub the body with. The patient should have some mulled wine or a little tea, and be placed in a room where there is a fire. A part which has been improperly exposed to a too sudden heat, and has thereby been brought into the state of gangrene, may sometimes be, nevertheless, recovered by immersing it in water of a temperature near the freezing point; it must be kept in water till the swelling diminish, and then friction may be made.

ON THE PHYSICAL PHENOMENA OF LIVING BODIES.

By Professor MATTEUCCI, of Pisa.

PART XVII.

HEARING.

(Continued from page 133.)

The structure of the ear varies exceedingly in the different classes of animals. We shall confine ourselves here to a brief description of the ear of man.

The external part of this organ, termed *pinna* or *lobe of the ear*, consists of a supple and elastic fibro-cartilaginous plate, unattached in the greater part of its surface, and which may, in some measure, be looked upon as an expansion of the auditory tube or meatus. The movements of which the lobe of the ear in man is capable are exceedingly limited. The *auditory meatus* is scooped out of the temporal bone, but extends only to a very inconsiderable depth into the latter; it is intersected at its termination, obliquely to its axis, and closed by a fine and highly-elastic membrane, called *membrana tympani*. The *tympanum* is a cavity scooped out of the temporal bone, and has four openings: one of these is formed by the termination of the external meatus, and closed by the membrana tympani; opposite this there are two foramina, termed respectively *fenestra ovalis* and *fenestra rotunda*, each of them closed by a membrane expanded across. Finally, in the lower part of the tympanum there is a fourth aperture, which may be looked upon simply as the entrance to the Eustachian tube, which latter leads to the upper part of the pharynx. The interior of the tympanum is traversed by a chain of ossicles, termed respectively the hammerbone or *malleus*, the anvil or *incus*, the *orbicular* bone, and the stirrup or *stapes*. The hammerbone is attached parallelly to the membrana tympani in the manner of a solid radius, proceeding from the circumference to the centre of that membrane. The hammerbone is at one end articulated with the anvil, which, again, is articulated with the *orbicularis*, and the latter with the stirrup, which finally abuts on the fenestra ovalis. Several muscles seem to impart to this chain of ossicles certain slight movements which effect contraction or elongation of the chain, and vary thus the degree of tension of the membranes on which it presses. Beyond the tympanum, and in the solid part of the bone, is the *internal ear*, formed of several cavities communicating with each other, and which are respectively called the *vestibulum*, the *semi-circular canals*, and the *cochlea*. The vestibulum occupies the central part, and communicates with the tympanum (through the fenestra ovalis) and with the three semi-circular canals. The cochlea, termed thus from its spiral form, terminates in the interior of the vestibule, and is divided from the tympanum by the fenestra rotunda. The vestibule and cochlea contain a liquid (called Cotugno's) in which the filaments of the acoustic nerve float.

Having thus briefly enumerated the principal parts of the ear of man, and of the higher animals, we will now proceed to study the propagation of the sonorous waves through these several parts, and subsequently endeavour to deduce from the results of our investigations the physical theory of audition.

The organ of hearing in man and the higher animals consists, then, of several membranes, osseous parts, air, and a liquid; the vibrations are propagated through these several substances, which are all capable of transmitting sound. This much is certain, therefore, that every component part of the ear may perform a share in the function assigned to that organ, but the science of acoustics gives us no perfectly satisfactory information as to the precise part assigned respectively to every one of the several componenta. We must have recourse here to comparative anatomy, experimental physiology, and pathology. The information gathered from these sciences enables us to determine the degree of importance that attaches respectively to every individual part of the ear in the performance of the function of audition, and to estimate the degree in which every individual part respectively contributes to the perfection and delicacy of the organ of hearing.

We find that the external and middle ear are wanting in a great many classes of animals, which, notwithstanding, we consider endowed with a sufficiently keen ear. Thus, for instance, in birds we find not a vestige of the pinna; reptiles have no *meatus externus;* and in fishes the organ consists simply of the internal ear. There is, however, one part which we find invariably present, viz., the vestibule, which is a membranous bag filled with a liquid in which the extremities or ramifications of the auditory nerve float. The mode in which that nerve terminates seems certainly the most judiciously adapted for the purpose which it is intended to subserve; the nerve, being reduced and attenuated to exceedingly minute filaments floating in a liquid, the points of contact are multiplied to the greatest possible extent.

We know that vibrations are propagated in liquids, as they are in membranes and all elastic bodies, dividing into vibratory portions separated by nodal lines; in liquids numerous vibratory movements may equally be propagated, and may coexist simultaneously without interfering with each other. It seems, also, proved by certain experiments of Cagnard-Latour, that vibrations are propagated more readily from the solid walls of a cavity to the liquid contained in it, if minute solid particles are dispersed through the latter, or even if they are fixed to the sides of the enclosing cavity. This is owing simply to the circumstance that the points of contact between the solid and the liquid are more numerous, and there is accordingly a multiplication of directions in which the vibrations may propagate themselves in a straight line from one to the other of these media, according to the inequalities presented by their surfaces. Such small solid particles are found in the liquid filling the labyrinth of the ear in certain fishes. We may accordingly conclude that the vestibule, or rather the mode of termination of the acoustic nerve, such as we find it in all animals, occupies a most important share in the function of hearing.

The undulations of the air, produced by a sonorous body, may arrive at the acoustic nerve, either through the osseous parts of the cranium in which the ear is enclosed, or through the column of air of the auricular canal. The ticking of a watch held between the teeth, or applied to any part of the head, is still heard with sufficient distinctness, although the auditory passages be strictly closed. Some persons, affected with difficulty of hearing, are enabled to hear distinctly by placing over the auricular canal, or pressing between the teeth, a small stick fixed in the centre of a reservoir of air behind which the sound is produced. The stethoscope of the physician serves principally as a solid cylinder, by means of which numerous points of contact are established between the sonorous body and the ear.

The column of air in the auditory meatus vibrates equally with the sonorous undulations excited in the surrounding air. Experience proves that a sound produced in a solid body is, *cæteris paribus*, much more distinctly heard when transmitted through a solid medium in immediate contact with the ear. On the other hand, sounds produced in the air, as in the case of all wind instruments, are the more distinct, the more considerable (within certain limits, of course) the quantity of vibrating air in communication with the auditory meatus. Now, when we find these two modes of propagation combined in a single organ, we cannot doubt but that they contribute powerfully to the perfection of the function of that organ. These principles may be applied to explain in a great measure the use of the pinna and the auditory meatus. These parts may, in fact, be looked upon as constituting an instrument analogous to the ear-trumpet, and which, from its peculiar form, collects and reflects towards the axis of the auricular canal a larger number of sonorous waves, and serves at the same time as a reservoir of air, to strengthen the sound; there can be no doubt but that the presence of this reservoir increases the intensity of the sounds yielded by musical instruments, both stringed and wind. Savart's bell held vibrating before a receptacle of air, and Marloye's monster diapason mounted on a large air-chest, demonstrate to evidence the effects produced by the resounding of masses of air surrounding the sonorous body. An analogous experiment to those with Savart's bell and Marloye's diapason may be made by approaching a diapason to the ear, or introducing it into the mouth: in the latter case the sound will acquire great intensity. In all these instances the sound is strengthened by the sonorous waves, which are reflected from the sides of the receptacles; and, at the same time, by the vibrations imparted to the mass of air and to the sides of these receptacles.

In animals with moveable pinna, the analogy of the latter with an ear-trumpet is strikingly evident. Thus we see animals, when pursued, throw the aperture of the pinna backwards, whereas, when pursuing their prey, the opening of the pinna is turned forwards. The external ear of man does not possess this faculty of motion, and differs, moreover, greatly in form from that of other animals. It seems exceedingly difficult to conceive the use of the pinna, and several instances might be adduced in which the absence of this appendage did not seem to interfere greatly with the auditory faculty. The least improbable explanation that we could offer would be this: considering the habitual position of man, the mobility of his head, and also the elegance of the latter, it would be impossible to endow the pinna with motory power without giving to it the shape of an ear-trumpet, in the manner of the monsters of mythology. The pinna is formed of an elastic cartilage, of which the plane is (at all events, as far as the greater portion is concerned) parallel to that of the membrana tympani, and consequently perpendicular to the axis of the auditory meatus; and this is, according to the laws of the propagation of vibrating movements, the best position that the pinna could possibly have been placed in, for the sonorous waves striking this membrane perpendicularly are more readily propagated in the internal ear, either by the solid walls of the auditory meatus, or by the column of air in the latter. When we wish to hear distinctly, we place the head in a position to make the pinna receive perpendicularly the sonorous waves.

It might be asked, why interpose the tympanum between the auditory meatus and the vestibule? We may reply to this, without hesitation, that the tympanum is not indispensable to audition, as is sufficiently demonstrated by its absence in several animals, and, in some instances, even in man (there are some cases on record of individuals endowed with the faculty of hearing, although deprived of the middle ear, either from original malformation or from the ravages of disease). Let us, however, hasten to add, that the middle ear, and the peculiar arrangements of its parts, tend to render the organ of hearing in man much more perfect and less liable to alterations than would be the case were this part omitted.

We will now proceed, in the first instance, to examine the way in which membranes vibrate. Savart has shown that membranes, when properly stretched, and placed near a sounding

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organ-tube or stringed instrument, vibrate in the same manner as if they were in contact with sounding bodies; and, upon covering them with sand, they are observed to divide into vibrating parts separated by the ordinary nodal lines. At each variation of the sound, new arrangements appear on the membranes, and these divisions are more readily and promptly produced on them than on plates of glass or metal. Savart has equally demonstrated that membranes alone present the peculiarity of dividing under the influence of one and the same sound in different fashions, although they be left unvaried in form, dimensions, and tension. Lastly, we may add that variations of the degree of tension of a membrane are attended with variations in its manner of dividing and vibrating under the influence of one and the same sound. From these facts collectively, we may deduce, that to propagate sounds in the interior of the ear, and to modify at will the intensity of the vibratory movements, it was desirable to close the auditory meatus with a stretched membrane, and to add in the interior of the organ an apparatus adapted to propagate the vibrations to the parts in contact with the acoustic nerve, and capable, moreover, under the direction of the will, to vary the tension of the membrane expanded across the meatus.

Take an ordinary ear-trumpet, and close the opening with a membrane to which you have previously affixed a small wooden stick, to enable you to vary the tension of the membrane. Upon applying this trumpet to your ear you will speedily perceive a considerable difference in the intensity of the sounds transmitted through the trumpet, according as the membrane is more or less tightly stretched; when the membrane is very tight, the sound will appear considerably less intense than when the membrane is relaxed. Perhaps, in the former case, the membrane divides more readily in yielding sounds which, although in unison with the original note, are less intense. In the human ear the tension of the membrana tympani might be varied in two different ways, viz., the chain of ossicles might be made to perform the part of the wooden stick of the preceding experiment, or the desired effect might be produced by modifying the density and elasticity of the air contained in the cavity of the tympanum. The second course of proceeding is not natural, and its application would require a certain degree of skill and a somewhat violent effort.

Another important part of the ear is the Eustachian tube, which leads from the cavity of the tympanum to the upper part of the pharynx, and serves to maintain a free and constant communication between the middle ear and the external air; by this means the air in the cavity of the tympanum is maintained at a uniform degree of moisture, and its elasticity on a par with that of the atmospheric air.

A species of temporary deafness may be contracted simply by shutting the mouth, stopping the nose, and then dilating the thoracic cavity to the greatest possible extent. The same effect may be produced by a deep and protracted expiration. This deafness continues a few instants, and a movement of deglutition is the most efficient means to remove it. In these two cases the air in the cavity of the tympanum is rendered either more or less dense than the external air, and the membrana tympani experiences a different tension, directed sometimes towards the external, at another towards the internal, part of the ear. Wollaston, who was the first to observee these facts, remarked that the temporary deafness contracted seems to relate more exclusively to grave sounds. Thus, he states that he could no longer distinctly hear the strong noise of a carriage rolling at a certain distance, whilst he readily perceived the slight sound produced by striking the table with the tip of his nail. A similar experiment may also be made with the ear-trumpet of one of the preceding experiments. If the membrane across the opening of the ear-trumpet be tightened, strong noises will be heard but indistinctly, whereas the ticking of a watch will be heard with greater distinctness than usual.

There are cases on record of individuals unable to hear an ordinary voice, and who could not carry on a conversation except in the midst of considerable noise, It must be assumed, in such cases, that the susceptibility of the organ of hearing, though greatly enfeebled, persists still for grave and deep sounds, and this may be accounted for in some measure upon the supposition that the membrana tympani has, in cases of this kind, lost the faculty of varying its tension under different circumstances.

The internal muscle of the malleus and that of the stapes may serve to modify the state of tension of the membrana tympani, under the direction of the will. Müller assumes that these muscles contract in consequence of a reflex movement, in the manner of the muscular fibres of the iris, under the influence of a vivid light. Under the impression of a violent and protracted noise, the stapes and malleus, by the contraction of their muscles, stretch the membranes to which they are respectively fixed, and give rise to a temporary deafness which, under such circumstances, cannot but prove salutary.

What is the function of the entire chain of ossicles? Why should there be a combination of four ossicles, instead of a single one? Why not suppress the fenestra rotunda, or the fenestra ovalis, or even the two? Our present knowledge of acoustics is too limited to enable us to reply satisfactorily to these questions.

The chain of ossicles serves, as already stated, to vary the degree of tension of the membranes to which its extremities are respectively affixed, and there can be no doubt but that it answers, moreover, in the ear the same purpose as the bridge does in a stringed instrument, and the chest in a drum. If we cover with sand one of the membranes of a drum, and strike the other, we see the sand vibrate and form into divisions, which vary according to the manner in which the chest is arranged and disposed. The chain of ossicles is a species of bridge suspended in the cavity of the tympanum, which not only propagates vibrations from one of its sides to the other, but receives, moreover, the shocks of the air. The membrane of the fenestra ovalis, which communicates with the vestibule, finds its elasticity and tension unquestionably better protected by being placed in a reservoir of air enclosed in the interior of the ear, than would be the case were this membrane in immediate contact with the atmosphere. More satisfactory replies than these may, perhaps, at no distant period be given to the above-proposed questions; but as the organ can exist and perform its functions, without either chain of ossicles, membrane, or cavity of the tympanum, this much must be admitted—that these components do not constitute the essential part of the organ of hearing, but contribute simply to its perfection and preservation.

With regard to the semicircular canals and cochlea, we have very little to say; it is generally supposed that the vibrations excited and transmitted through the solid walls in which the ear is encased, are transmitted through the semicircular canals and the cochlea to the acoustic nerve.

In conclusion, we have to offer a few remarks on the physical characteristics of sound, the comparison of the different sounds, and the limits to which sounds continue perceptible. Any excitation of whatsoever nature, communicated to the acoustic nerve, produces a sonorous sensation. The term "*sound*," in a more restricted sense, signifies a sonorous sensation continuing uniform for a certain time, and susceptible of comparison and measurement. *Sound*, properly speaking, differs accordingly from *noise* in this much, that the latter is the effect of a single shock, or of a series of irregular shocks; whereas, sound is the sonorous sensation experienced when the acoustic nerve receives a certain number of vibrations succeeding one another at uniform intervals. The acuteness or graveness of a sound depends upon the greater or less rapidity with which the vibrations succeed each other. The intensity of a sound depends upon the extent of the excursive movement of the vibrating parts.

Wollaston and Savart have endeavoured to determine the limits within which sounds continue perceptible to our ear. Savart has demonstrated that their limits extend much further than was formerly supposed, and that, to enable us to perceive very acute or very grave sounds, it suffices to increase their intensity. It results from his experiments that the limits within which sounds continue perceptible to our ear extend between 14 and 48,000 vibrations per second.

ORIGINAL CONTRIBUTIONS.

REPORTS ON THE DISEASES OF FEMALES.

By EDWARD RIGBY, M.D.,

Fellow of the Royal College of Physicians, Senior Physician to the General Lying-in Hospital, Lecturer on Midwifery at St. Bartholomew's Hospital, Examiner on Midwifery to the University of London &c.

In my last report (a) I commenced a series of cases connected with sterility, and, for the purpose of bringing them under some sort of arrangement, I proposed to divide them into the two classes of *organic* and *functional*. The present case which I offer to your notice is one depending on organic defect, and, therefore, belonging to the first class. I have condensed it from a very carefully drawn up report by my friend Mr. T. Safford Lee, under whose care the patient was, and who consulted me from time to time about her.

Miss H. S., aged twenty-six, residing at the distance of about sixty miles from town; small in stature, blonde, and healthy looking, but of very juvenile appearance.

Aug. 6, 1846. Has never menstruated, although at occasional but irregular intervals she has pain in the back and loins, with sense of fulness in the lower portion of the abdomen. The breasts are well formed; the nipples small, with all the appearance of virgin organs well developed; they are firm, and the glands distinct.

At about the age of fourteen both breasts became very large, with much tension amounting to pain; after a short time they gradually diminished, and are now of the ordinary size; attacks of pain occur now and then, but observe no regularity of period. Acknowledges to having a full amount of natural feelings connected with the genital organs, and that when the above-mentioned periods of abdominal fulness occur they are even strong; during the last two years these feelings of venereal excitement have increased. She has enjoyed excellent health, with the exception of frequent hysterical attacks when about eighteen or nineteen years of age.

Exam. per Vaginam.—The external parts are perfectly natural; on separating the nymphæ a cavity is observed corresponding to the orifice of the vagina, but it is only a depression, being merely a *cul de sac* of very trifling depth; no tumour or fulness is to be felt above it. I advised Mr. Lee to adapt a globular tent to this cavity, and to fix a compress in front by means of a firmly-applied T bandage: a plan which quite coincided with his own view of the case. He continued the application of tents for a week or ten days, producing gradual enlargement of the cavity.

Sept. 8. We were surprised to find that the finger now passed into a canal of about three inches in length, into which a tent was introduced.

9. On examination, Mr. Lee found that the orifice of this canal was capable of contracting upon the finger at the will of the patient, beyond which, for about half an inch, it had a rough, irregular surface, which was very tender, and as if it were raw to the touch, like recently-divided structure; beyond this there appeared a small but distinct canal, with a smooth surface like that of a mucous membrane; it was too small to admit the finger so as to ascertain its length.

(a) *Medical Times*, Aug. 7, 1847.

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12. A sponge tent has been applied daily; a larger one was now introduced.

17. The canal will now admit the finger with ease, and even two could be introduced. The length of the canal is three inches and a half. At its upper part Mr. Lee detected a small opening into which the uterine sound passed to the extent of fully half an inch; it produced no pain, and Mr. Lee thought he could perceive a slight weight at its extremity, which was moveable.

Exam. per Rectum.—While the uterine sound was in this position, Mr. Lee examined per rectum, and could trace it for about two inches and a half in the vagina; it then appeared to pass upwards, and he could not feel its point. When the sound was passed into the bladder, he could not feel any substance between it and the finger in the rectum beyond the parietes of both organs. A large bougie was introduced every night for a few weeks, and she returned to the country with instructions to continue its use.

Oct. 22. "Miss H. S. came again my charge," says Mr. Lee. "I found that she had been unable to retain the bougie, so that the canal had contracted considerably, especially at its upper part; the lower portion, near the os externum, having remained dilated; the upper part produced considerable resistance to the passage of the finger. She states that after she had been about a month in the country she was seized with considerable bearing-down pain, and a sense of forcing downwards; the abdomen at the time was swollen, and she experienced a good deal of uterine excitement. Both breasts felt distended, and the left one was painful. I again applied a sponge tent daily, and only discontinued it when the external parts became tender."

"Nov. 11. The canal is now much larger, but I cannot find a uterus."

13. The sponge tent has been retained two days, producing a good deal of pain in the back; on removing it, the canal is found much dilated, so as to admit three fingers. It is now more like the vagina, and at its upper part there is a small opening very much like the orifice of the os uteri.

21. Nothing has been introduced into the vagina for two days; it remains well dilated, although not quite so much as before. The great point now was to ascertain the existence of a uterus. Mr. Lee examined carefully per rectum whilst a small male catheter was in the bladder, but nothing of a uterus could be felt. The patient, who is in good health and spirits, states that considerable uterine excitement attended the removal of the tent yesterday, and this was followed by a discharge.

Dec. 12. Sponge tents have been daily applied, and the vagina is well dilated. At the upper and back portion a small fissure is felt, which is pervious, and the uterine sound passes through it to the extent of nearly an inch; it passes easily, without pain, and is apparently stopped by a solid body, which seems heavy. During the last week the feelings of uterine excitement have been more considerable, and she states that she had a red discharge preceded by pain in the back and headache. This occurred when she was not wearing a tent. The breasts at the same time were large and painful.

She returned home on January 1, 1847.

The history of this interesting case leaves off to a certain extent incomplete, owing to circumstances over which Mr. Lee had no control.

I made an examination when the vagina was well dilated, and felt convinced that I could detect an os uteri at its extremity, although at that time it was not pervious; whether or not the uterus was normally formed must remain for the present undecided; but there can be little doubt that the ovaries are natural and capable of performing their proper functions, not only from the red discharge which occurred without the presence of any distending body in the vagina, but also from its being preceded and accompanied with the usual symptoms of a menstrual period. There can also be no doubt but that the canal which was reached by the action of the tents was the upper portion of the vagina in its natural state, although much contracted, as is seen by dilatation of this part being only temporary, while in the portion which had been artificially opened it was permanent.

A somewhat similar case has been recorded by M. Amussat, of Paris, in the 'Gazette Médicale," Dec. 12, 1835, and quoted by Dr. Churchill of Dublin. A uterus distended with menstrual fluid could be detected per rectum at the upper part of the pelvis, but there was no trace of vagina, the parietes of the bladder and rectum being in close contact. M. Amussat commenced by depressing the mucous membrane of the vulva with the points of his fingers in the situation where the orifice of the vagina ought to have been, and, the membrane giving way, he gradually advanced in the cellular interspace between the urethra and rectum, guided by a sound in the former, and his finger in the latter, and retaining the ground he gained each day by a sponge tent, until at length he reached the tumour in the pelvis, which he first punctured with a trochar, and afterwards more largely opened with a bistoury, giving exit to a large quantity of dark jelly-like fluid. An additional quantity was discharged by a spontaneous opening into the rectum. The artificial os uteri was kept open for some time by a canula. The operation of course caused severe pain and excessive constitutional suffering; but, ultimately, owing to the care and skill of M. Amussat, the patient perfectly recovered, and at the time of writing the paper was menstruating regularly, enjoying good health, and about to call into play other uterine functions.

ASPHYXIA AND CONVULSIONS PRODUCED BY CHLOROFORM.

Communicated by JOHN BEALES, Esq., Halesworth, Suffolk.

Case 1.—A young lady, aged 27, who has for the last two or three years been the subject of severe neuralgic affection of the left side of the head and face, applied to me on the 11th inst. to extract one of her molar teeth of the upper jaw, of the same side, under the influence of chloroform. I accordingly moistened a sponge with one drachm of "Hooper's preparation," covering it over with a fold of lint, and at first held it for a short time at a little distance from the mouth and nostrils, and then applied it closely over them both for rather more than two minutes, without producing the desired effect. During this period the pupils of the eyes were alternately dilating and contracting, but the pulse was only slightly accelerated, and she expressed two or three times a desire that more chloroform should be used. I, therefore, finding there was no tendency to the soporific state, added from twenty to thirty drops more upon the sponge, which in two or three seconds produced a rigid state of the arms and legs, with slight convulsions of the abdominal muscles. The pupils of the eyes soon became dilated to their utmost extent, and one of the most alarming states of asphyxia followed, which continued for one minute at least; the eyelids were fixed widely apart, the mouth open, and the countenance was as pale as ashes, with a dark livid hue around the lips, indicating, altogether, the most deathlike appearance I ever witnessed. My partner, Mr. Garrard, who was present, immediately opened the window of the room, and then brought a bottle of the strong liq. ammon., which was the nearest restorative at hand, and held it to the nostrils, when, in a second or two, one deep inspiration took place, which was followed shortly by another. At this moment the face was instantaneously suffused with the brightest crimson, attended with the most rapid reaction of the pulse, and the patient apparently fell into a calm sleep. I now proceeded to extract her tooth, but before I could remove the instrument with the tooth from her mouth, the jaws became so firmly fixed upon it that it was impossible to remove it for two or three minutes, during which state the arms, legs, and the whole body were in one continued state of the most distorted convulsion. With the greatest difficulty we depressed the lower jaw, and removed the instrument and tooth. The convulsions (though not so violent) continuing for five or six minutes longer, when she became half conscious, and muttered—"More, more, or I cannot have my tooth out." She remained in this state, more or less, for another half hour, when she was attacked with the most excruciating pain at the top of the head, where there was much heat, and to which I applied linen rags dipped in ether, for about twenty minutes, which removed the heat and considerably abated the pain; she then reclined upon a couch for an hour and a half, and arose quite comfortable, and went home into the country. I called upon this patient the following day, and she only complained of great lassitude, as well as much soreness of her whole frame; she had had a pretty good night, and was in excellent spirits, and declared she would undergo the inhalation again if she required it. She described the feelings in her head in the first instance (under the effects of the inhalation) to the noise of a steam-packet just starting from her moorings, and afterwards, her sensations to have been most heavenly.

Case 2.—I also tried the chloroform on the 4th inst. upon a strong agricultural lad for onychia. I put one drachm of the same preparation upon a sponge, and applied it precisely with the same caution as in the preceding case, and in one minute the lad was in a deep sleep. I then divided the nail with a strong pair of scissors, and, during the time I was extracting the separated portion with the forceps, both legs were drawn up to the body by one violent convulsive action. Consciousness returned in another minute; he had felt no pain, nor was he aware that the nail was removed, but he complained of headache and sickness, and very soon vomited freely.

Case 3.—On the 10th inst., I witnessed an operation for stone upon an old man of seventy-seven, performed in the presence of several professional gentlemen, where the chloroform (in the quantity of one drachm and a half at least) was used upon a sponge, covered with a silk pocket handkerchief, and applied in a similar manner as in my own two cases. In two minutes the poor fellow was under its influence, but for five or six minutes, or even longer (although bound hands and feet), the convulsive action of his arms and legs was so violent, that it was with the utmost difficulty that two or three gentlemen, with myself, who were holding them, could keep him steady upon the table until the operation was finished. In this case, upon the return of consciousness, the patient was surprised to find the stone was extracted, and he declared he had not felt that he had been cut.

These are the only three cases in which I have witnessed the effects of the chloroform, and I must candidly confess that I have not been struck with its superiority over ether, under the influence of which, I have performed many of the principal operations in surgery, as well as having seen a great many capital operations in town, and in the country, by other surgeons, all of which have been unattended by any of the convulsive effects and alarming symptoms produced by the chloroform.

PUERPERAL CONVULSIONS AFTER DELIVERY.

Communicated by J. B. STEDMAN, Esq., Surgeon, Whittlesea, Isle of Ely.

Mrs. B., a healthy woman, of middle stature, aged thirty-two, mother of three children, was confined in the afternoon of the 24th of October of the present year; the labour being easy and of short duration: a midwife was in attendance. Had complained of headache and dizziness a day or two before her confinement, but obtained relief after that event. A recurrence took place twenty hours after delivery, accompanied with a wild

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expression of countenance and hasty manner, which induced her friends to seek medical aid. Twenty-four hours after delivery I arrived at the patient's house; upon entering her bedroom I distinctly heard a peculiar hissing noise proceeding from the patient. She was in bed, being detained there by the efforts of four women. There were violent convulsive actions of both extremities, and the muscles of the face were under the same influence. The tongue was protruded from the mouth, and foam was abundant. The face and neck were swollen, with increased carotid action. The eyes were starting forwards, rolling about, and having a peculiar wildness in expression; the pupils dilated and uninfluenced by light; the head very hot; the state of the pulse could not be ascertained, owing to the violent action of the arms. In the absence of any hysterical symptoms, I diagnosed the case as one of puerperal convulsions after delivery. Twenty ounces of blood were immediately drawn in a full stream, an ipecacuanha emetic given, the hair was cut short, and cold assiduously kept to the head; sinapisms to both calves. In about an hour she became more quiet, the convulsions occurring only at intervals; the pulse was ascertained to be 110, of largish calibre; the pupils became contracted; the breathing was stertorous. Her state resembled the apoplectic. A large blister was applied to the nape; ten grains of calomel, six grains of camphor, and two drops of croton oil were given, which had the effect of producing some copious evacuations. After twelve hours' elapse, coma being still present, eighteen ounces more blood were withdrawn, and the frigid mixture substituted for cold water to the head. The inability to swallow prevented the administration of other medicines.

She continued in a comatose state until seven o'clock of the twenty-sixth day, sixty-three hours after delivery and thirty-eight after seizure, when death took place.

Puerperal convulsions after delivery are of very rare occurrence, their supervention taking place either before or during labour. The cause of the attack is various; but in this instance I attribute it to the peculiar type of disease then prevalent in the neighbourhood, which was clearly under a miasmatic influence, as both erysipelas and puerperal fever, those scourges of midwifery practice, had to a certain extent manifested themselves.

Since writing the above I have perused Dr. Churchill's valuable little work on "Midwifery Practice," and find a description of the above case under the head of Apoplectic Convulsions.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF MEDICINE.

Meeting of Dec. 7; M. Begin in the Chair.

Chloroform.—M. Charrière presented to the academy an instrument for the inhalation of chloroform: it consisted in a silk tube, supported by a spring wire, and terminated at one extremity by a receptacle for chloroform, at the other by a silver ring which could be readily adapted to the mouth. When closed, the instrument occupied a very small space, and could be conveniently carried in a snuff-box.

ACADEMY OF SCIENCES.

Meeting of Dec. 6; M. Brongniart in the Chair.

Hematology.—A paper on the composition of the blood in the general paralysis of the insane was read by M. Michéa. From the analysis of the blood of many patients, M. Michéa concluded that in general the globules were increased, and the fibrin diminished, in quantity: these changes in the composition of the circulating fluid would account for the frequency of cerebral congestion and its consequences, and were to be counteracted by a very moderate diet and occasional venesection.

CHLOROFORM.

Dislocation of the Shoulder.—A man, aged sixty-four, was admitted into hospital on Dec. 1 for a dislocation of the shoulder, which had taken place seven days before. M. Charrière's inhaler was used, and ʒij. of chloroform were employed; after four minutes, insensibility was obtained, and, without any assistance, M. Velpeau reduced the arm, the muscles not offering any resistance. No sensation whatever was experienced by the patient, who stated that he had no dreams.

Onyxis.—The same surgeon, in two cases of onyxis, removed the nail without pain. In neither instance was the inhalation followed by headache or nausea.

Strangulated Hernia.—On Dec. 5, a woman, aged sixty-five years, insane, was admitted into M. Velpeau's wards, bearing in the right groin an inguinal hernia, strangulated since three days; reduction had been vainly attempted. ʒij. of chloroform having been inhaled, complete insensibility was produced in one minute, and the operation was performed, and lasted seventeen minutes, during which the patient appeared to be in a state of repose; during the day vomiting returned, and several motions also took place: peritonitis, however, occurred, and the next morning, Dec. 6, the patient died. On dissection, effusion of stercoral matter was found to have produced violent peritonitis, and a minute perforation was detected in the part of the intestine which had been exposed to pressure.

In three other cases, two of removal of tumours, and one amputation of the leg, Prof. Velpeau again used the chloroform with the same success, and seemed to prefer the simple inhalation of the anæsthetic agent on a handkerchief, to any other mode of exhibition.

FACULTY OF MEDICINE.

LECTURES ON GENERAL PATHOLOGY, BY PROFESSOR ANDRAL.

Second Part. Chapter I. (*continued*).

DYSPEPSIA.—GASTRALGIA.—VOMITING.

The manner in which the stomach performs its functions also furnishes diagnostic signs of disease. Dyspepsia, or disturbance of the digestive functions, results in general from some irregularity in the secretion of the gastric juice, and we must here make some physiological remarks which are closely connected with our subject. The history of dyspepsia is, besides, considerably enlightened by recent experimental researches upon the secretions of the stomach. Spallanzani, it is true, instituted inquiries into this matter, but the more recent researches of Beaumont, Bernard, and Bareswill have been still more fruitful, and have thrown a greater light upon the symptoms and nature of dyspepsia. Thus we know that, when the stomach is empty, its inner surface is covered with more or less of greyish mucus, which is never acid, but may be occasionally slightly alkaline when any substance is introduced into the cavity of the stomach. Experiments have further taught us that the mucous membrane becomes congested, and that a transparent and acid fluid is poured upon its surface. This is the gastric juice, the secretion of which may be modified by various circumstances. Thus, when a stimulus is introduced into the stomach, if it be gentle, the secretion of gastric juice is increased; but if the stimulus be powerful, the gastric juice altogether ceases to be excreted: it is replaced by mucus; digestion is suddenly arrested, and bile may even flow back through the pylorus. Great pain, or fear, or any sudden and violent emotion, produces the same effect, and stops the secretion. All these physiological facts, which experiments have positively demonstrated, are, in our opinion, most important to the subject now before us.

Dyspepsia shows itself in the first place in those maladies in which the stomach is primarily concerned: thus, inflammation of that viscus causes dyspepsia and pain; in bilious synocha, it is attended with nausea, and sometimes vomiting; and the introduction of light food and mucilaginous fluids into the stomach aggravates the symptoms, but they are often removed by a more stimulating diet and bitter drinks. This form of dyspepsia is frequently due to the abuse of fat substances, or of vegetable diet, and to want of exercise; it is more commonly observed in damp than in dry seasons. We believe it to be produced by the arrest of the secretion of gastric juice and the increase of the mucous fluids of the stomach. Dyspepsia may be noticed with cancer of the stomach, but not always, and, when present, contrasts with the perfectly natural state of the tongue. In chronic gastritis, the functions of the stomach are also disturbed; but the disturbance, unlike that of bilious synocha, is increased by stimulating nutriment, relieved, on the contrary, by light food. In gastralgia, dyspepsia is also observed, and is often removed by the ingestion of food. Subjects of a nervous constitution, young women at the period of their first menstruation, are subject to a nervous form of dyspepsia, which is aggravated by every strong mental emotion, and which is very commonly observed in large cities: it is often accompanied by obstinate vomiting and intense epigastric pain, and the diagnosis is powerfully assisted by the preservation of appetite, the absence of thirst, and the natural appearance of the tongue. Local or general debility is also a very common cause of dyspepsia. Therefore, after repeated venesection, abundant hemorrhage, frequent seminal emissions, voluntary or not, in convalescence, &c., it may be expected to appear.

But it is not only when the stomach is affected in a primary manner that its functions are disturbed. That organ participates readily in any general neurosis: in hypochondriasis, for instance, it is so constant a symptom that many authors, taking the effect for the cause, have classed hypochondriasis amongst affections of the stomach. In hypochondriasis no real pain is experienced, but after meals a sense of fulness of the stomach, flatulency, and the continual eructation of inodorous gas are very habitually observed. In hysteria it is not so much dyspepsia as violent epigastric pain which is complained of. Certain alterations of the blood also interfere with the gastric functions: they are often disturbed in chlorosis, when the use of the cinchona bark proves a valuable adjunct to feruginous preparations. Digestion is arrested by febrile excitement, and when hectic fever becomes continuous the same is also observed. In chronic diseases, in consequence of feverishness, debility, or some gastric complication, we generally, at one period or the other, meet with dyspepsia, the cause of which should be very carefully ascertained.

During health the operations of digestion are performed without causing any painful sensations. The various forms of dyspepsia all produce more or less uneasiness; but the sensibility of the stomach may be excited to such a degree as to occasion absolute pain, which may vary according to the circumstances attending its production, according to its nature, its intensity, or its seat. Thus, in acute gastritis the pain is generally insignificant, but its chief characters are to increase by pressure and by the ingestion of food. In bilious synocha no pain is experienced, but a sense of fulness and weight in the epigastric region. In cancer of the stomach, as in other internal cancers generally, we do not usually meet with the lancinating pains considered as pathognomonic of the disease, and which really exist in a marked manner in mammary cancers only. In some cases, however long before the full development of the disorganization, a sudden and excruciating pain occurs, which may be attributed to the propagation of the incipient disorder to some nervous filaments. In gastralgia a similar pain is sometimes observed; its intensity varies, but it may be sufficiently great to produce faintness, syncope, and even death. This extreme pain may coincide with preservation of the appetite and regular digestion; it is observed in many nervous subjects, is more common in the female than in the male sex, often accompanies abundant uterine discharges; it may result from general

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debility, gout, or erratic rheumatism, and sometimes yields to tonic medicines and invigorating diet.

The rejection of the contents of the stomach constitutes vomiting. Various substances may thus be expelled: food, drinks, medicines, foreign bodies, or blood, which may be furnished by the stomach itself; mucus, pus, or blood; the latter fluid acquires a dark colour if it be preserved in the stomach any length of time before expulsion, and in such cases the microscope shows that its globules have totally disappeared. The rejected matter may come from the intestines; hence fæcal matter, entozoa, or bile, having either spontaneously returned into the stomach or solicited by tartar-emetic, biliary calculi, or the contents of neighbouring tumours containing pus, cancerous matter, hydatids, &c., may also be voided into the stomach and rejected by the act of vomiting.

In diseases of the stomach, vomiting is a very frequent symptom; it is the characteristic of indigestion resulting from improper or too abundant food; acute gastritis cannot exist without producing vomiting of mucus, or of greenish bile occasionally streaked with blood. In bilious synocha, vomiting is not usual, but happens sometimes, and is arrested readily by the exhibition of tartar-emetic—a fact concisely expressed by Hippocrates in the aphorism, "Vomitus vomitu curatur." Some persons reject in the morning, with very slight effort, a more or less considerable quantity of a viscid, transparent fluid of extreme acidity; this symptom may last for a long time without disturbance of the digestive functions, but it may also be the premonitory sign of gastric cancer. In the latter disease, particularly when the orifices of the viscus are obstructed, vomiting is very frequent, recurring either a few hours after a meal, or at several days' interval, when the viscus has been gradually dilated to the extreme limits of its extensibility. Food is often found in the rejected matter, but, in proportion as the disease advances, vomiting of blood becomes a more frequent and a more important symptom. The hemorrhage from the stomach may be extremely abundant; its colour is generally dark, and has been compared to soot, coffee, chocolate, &c. Hematemesis is not, however, exclusively special to cancer: we find it in some forms of pyrexiæ, in yellow fever, for instance; in purpuræ and scurvy it may also be met with. In gastralgia, vomiting may also be the only symptom of disease.

In maladies not affecting the stomach in a primary manner, the same symptom is also noticed. Thus, during the fever of incubation of variola, which often presents so much analogy with the incipient stage of typhoid fever, it constitutes a most valuable diagnostic sign. We again meet with it in all cases of mechanical, or even dynamic, obstruction to the progress of the matter contained in the intestines: where the obstacle is situated in the small intestines, bile or mucus is usually rejected; but when the large intestine is occupied, fæcal matter is often vomited; in colica pictonum, when enteralgia alone is present, obstinate vomiting is not unusual, and we have seen it due to very small herniæ of the omentum or stomach, through an aperture of the linea alba, above the umbilicus. Acute hepatitis, unless complicated with gastritis, seldom is attended with vomiting; hydatids of the liver are often rejected in this manner through an ulceration of the stomach; and in obstructions of the ductus choledochus by calculi, besides the pain special to that form of colic, vomiting is also observed. Nephritis, and more particularly calculous nephritis, occasions the same symptom. As to the womb, its affections are frequently productive of vomiting; it is excessively common during the first months of pregnancy; and metritis, particularly when complicated by any degree of inflammation of the peritoneum, is attended with the same sign. It is also met with in an advanced stage of uterine cancer; and it is sometimes observed after simple cauterization of the os tincæ. With regard to diseases of the respiratory organs, we find vomiting in hooping-cough, after violent paroxysms of cough in consumption, and sometimes a part of the blood extravasated in pulmonary hemorrhage passes into the stomach, and is rejected by the contractions of that viscus. Maladies of the nervous centres are sometimes accompanied by vomiting; it is an early and characteristic symptom of meningitis, and M. Chomel has recorded a case of tubercles of the brain in which the convulsive action of the stomach had been incessant for a long time previously to the fatal termination of the malady. Vomiting is a common sign of the incipient stage of many acute disorders, doubtless because their invasion coincides frequently with the interruption of digestion; it is the special result of the exhibition of large doses of narcotic preparations and of digitalis, and it is observed in many nervous disturbances: thus, in facial neuralgia, in hemicrania, vertigo, syncope, sea and coach sickness, vomiting betrays the close connection which is established by the nervous system between the stomach and brain.

D. M'Carthy, D.M.P.

HOPITAL DE LA CHARITÉ.

CASE OF TETANUS, BY M. VELPEAU.—CHLOROFORM.

A man, aged 30, a mechanician, was, on Nov. 19, wounded by an engine, the last phalanx of the index of the right hand having been crushed. A simple dressing of lint and goulard water was used every day for a week, but on Nov. 24, stiffness of the neck and rigidity of the muscles of the jaw having occurred, the patient was admitted into hospital.

The extremity of the finger had mortified, and the red circle of elimination had already formed. The muscles of the posterior region of the neck were rigid, and preserved the head in a state of extension on the body. The masseter muscles were also contracted, and no efforts could permit of the separation of the jaws. The patient complained of no pain, and could speak, although with some difficulty; no convulsions were noticed. The pulse 90, heat natural, respiration slightly impeded by the rigidity of the respiratory muscles. Ether was inhaled, and, although after four minutes the patient began to feel drowsy, still this sensation disappeared, and he continued to inhale for half an hour without loss of consciousness. A very small quantity of chloroform was then used, without effect; and 3j. of laudanum were prescribed, in six lavemens, to be given, one every second hour. The next morning no amendment had been obtained, 3jss. of laudanum were again prescribed, to be employed in the same manner; and in the afternoon, at four o'clock, far from improving, the condition of the patient had, on the contrary, grown more alarming; the abdominal and femoral muscles had become rigid, and violent convulsions made their appearance; the pulse had risen to 104, the bowels were confined, the thirst considerable, and perspiration abundant. 3jss. of chloroform were then placed on a sponge, and applied to the patient's nose; after two minutes and a half his eyes closed, and a few more inspirations produced complete insensibility of the skin; during five minutes more the inhalation was continued, and all the muscles were instantly relaxed, the head returning to its natural position, and the jaws being now separated without the slightest effort. The pulse was not modified, and the pupils remained contracted, as they were previously to inhalation. They lasted twenty minutes, during which the patient had no dreams, but experienced a sense of happiness, which he could not account for. Shortly after waking, the contraction of the muscles of the jaws and neck returned; ten minutes afterwards, inhalation was resumed, and, an apparatus having been employed, insensibility and calm repose, with muscular relaxation, were again obtained; the muscles did not, however, lose their rigidity so completely as during the first experiment. Soon after waking, tetanic convulsions again made their appearance. One hour later, a third inhalation was resorted to, but with less complete results than previously. A fourth inhalation took place in the evening, and produced during three quarters of an hour sound repose. The next morning, Nov. 26, all the symptoms were aggrvated; the episthotonos was complete; the convulsions extremely violent, frequent, and occasioned by the most trifling causes; and finally, the patient expired at eleven o'clock A.M. On dissection, the brain and spinal chord were found in a perfectly natural condition; the kidneys, spleen, liver, and lungs, on the contrary, were gorged with blood, and several apoplectic nuclei were noticed in the posterior regions of the lungs.

D. M'Carthy, D.M.P.

Seat of Tubercle.—Dr. William Leeper, in "The Dublin Quarterly," remarks, the cellular tissue has generally been considered the peculiar site of this morbid product, but since, it has been shown that it has been deposited by way of secretion; the mucous tissue, if entering into the composition of the organ affected, is, in general, either the exclusive seat of this morbid product, or is far more strongly affected with it than any of the tissues of the same organ. The matter has been found in the air-vesicles and minute bronchial tubes by Lebert Nicolucci and Mr. Rainey; and, in more than one instance, in the pulmonary cells, when there could not be discovered any trace of the deposit in the cellular tissue of the lungs. Tubercular matter has been found secreted from the mucous lining of the large bronchial tubes, from that of the intestines, Fallopian tubes, and from that of the ureter, by Professor Henderson. In Cruveilhier's experiments, the globules of mercury injected into the lungs were found surrounded by tuberculous matter. This view of the anatomical site of this product, in the instance of the lungs, holds out the possibility, if not a well-grounded hope, of our being able to adopt such measures as may succeed in dislodging the matter from the air-cells, and so effect a cure in some cases; indeed, Sir James Clarke, impressed with this hope, recommends a peculiar treatment in the early stages to procure this end; but how far it may be found successful remains for future experience to disclose.

Case of Irregularity of the Femoral Artery; Fracture of the Femur from Necrosis; Hemorrhage; Death.—Mr. Henry Thomson, surgeon to the Tyrone Infirmary, relates the following case in "The Dublin Quarterly," as affording an example of an irregularity in the course of the femoral artery—rather a rare anatomical occurrence, and one which proved fatal to the patient. A youth, nine years of age, was admitted into the infirmary with a fracture of the right thigh immediately above the condyles. The lower third of the bone had been in a state of necrosis for six months previously, and several pieces of sequestra had been discharged from two openings. Through both of these openings the broken end of the diseased bone could now be very plainly felt: the lower fragment was drawn up behind the upper one, and projected in the form of a large tumour in the popliteal space: in front there was a hollow corresponding to the prominence behind. There was no great amount of hemorrhage; the appearance and temperature of the limb were natural, and the pulsation of the tibial arteries proved that the popliteal, which seemed endangered by the position of the lower fragment, was uninjured. Amputation was objected to by the friends of the patient, and the limb was placed on the double inclined plane, the bones having been placed in apposition as well as possible. He appeared to be going on favourably for about a month, when hemorrhage suddenly took place one evening to a very great extent. Faintness supervening, the bleeding ceased before assistance arrived. The blood was fluid, and had issued from the outer and posterior orifice, which, with the quantity lost, led to the suspicion that the popliteal, or some large artery, had been either perforated by some large spicula of bone, or opened by ulceration. Amputation was again proposed, but not allowed, and the treatment was, therefore, continued as before; and in a fortnight another bleeding took place, which was

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nearly fatal. And now there was observed a distinct diastolic pulsation, occupying the site of the fracture, commanded by pressure on the femoral artery in the groin, and unattended by any increase of swelling; a large artery, continuous with the femoral, could also be traced by its pulsation into the site of the fracture. From the debilitated state of the patient, nothing further was done: a third attack of hemorrhage occurred, from which he with difficulty recovered; and soon after a fourth, in which he died. On examining the limb, the vessel which had been traced along the inside of the thigh to the site of the fracture was found to be the trunk of the femoral artery, which ran in a direct line from the upper part of the thigh to the inner condyle, merely covered by the integuments and fascia, except in the middle third, where it was crossed by the sartorius. It sent a branch to the popliteal space, through the usual opening at the tendon of the adductor magnus; and, having arrived at the inner condyle, it took a sharp turn backward, and passed under the gracilis and inner hamstring tendons to the ham, where it divided as usual. The whole vessel appeared to be increased in size, and particularly where it passed over the site of the fracture: its coats here were remarkably soft and brittle, easily breaking down under the forceps. It was found adherent to the subjacent parts, when it passed over the broken bone; and, on slitting it open on the opposite side, a large opening, with a smooth, funnel-shaped margin, capable of admitting the extremity of the little finger, presented itself, leading into the cavity, which contained the broken ends of the bone, together with several pieces of sharp-pointed sequestra. This cavity communicated with the external openings. There was no attempt at union in the broken extremities of the bone. The fracture had taken place at the junction between the shaft and the epiphysis.

Pedunculated Tumours on the Mucous Membrane of the Bladder of a Cow.—In "The Veterinary Record" a case is related of a cow which had been ill for some days with symptoms of the prevailing epizootic in a marked degree. The head was protruded; the respirations laboured, and accompanied with a grunting noise; and the pulse varied from 85 to 90 in the minute. On ascultating the chest there was an absence of sound in the left lung, it having become consolidated. In the right lung the respiratory murmur was very loud, and resembled the distant rolling of carriage wheels; there was also, occasionally, a rushing sound, with crepitus. The diagnosis being unfavourable, the animal was ordered to be slaughtered. Just as she was being led away she was observed to strain violently, and to make many painful efforts to urinate, and which she ultimately effected with great difficulty; but the quantity of urine voided was inconsiderable, and of a dirty-brown colour. At the *post-mortem* examination, on laying open the bladder, a number of pedunculated tumours were found attached to its lining membrane. There was one, however, which had become detached, and this was floating in about a quart of brown urinous fluid, similar to that which had been passed previously to her death. When cut into, this detached tumour was found to be soft and fungoidal, and from this it was presumed to be a fungoid polypus.

Rheumatism of the Diaphragm.—This, says Dr. Mehliss, when occurring during the course of acute muscular rheumatism, is often extremely painful. It is, however, more frequent as a mild, independent affection in males of a nervous, but more particularly in females of a hysterical, habit. It is most common in wet seasons, especially towards the latter end of autumn, when its occurrence is sometimes epidemic. It infests ill-ventilated, underground tenements, and especially the low, damp dwellings of the poor. It consists in a dull pain, extending from the ensiform cartilage and the inferior extremity of the sternum to the spine. A somewhat deep inspiration sensibly increases the pain, which, though never very acute, occasions much distress, as denoted principally by dejected spirits and a marked expression of anxiety depicted in the countenance. The tongue is generally clean, but of a bluish cast; the appetite is not deficient, but even a moderate meal invariably occasions several hours of increased suffering. The bowels are sometimes obstinately costive; at other times tolerably regular in their action, which latter is, however, attended with great augmentation of the pain. The complaint, if not interfered with, will persist for weeks, if not months, and then gradually subsides; in which case, however, there remains a great liability to its frequent recurrence. The heart's action is, for the most part, turbulent, insomuch that cases have been repeatedly seen which have been mistaken for organic disease of the heart. In the majority of these cases it is requisite to confine the patient for some days to bed, and to cause a succession of mustard poultices to be applied at intervals to the epigastrium and back alternately. Warm diluent drinks, with occasional doses of Dover's powder and enemata of warm water—purgatives being here decidedly injurious—have generally sufficed to effect a tolerably speedy cure. It is necessary to restrain the patient both as regards the quantity and quality of the food. Sometimes the urine is quite clear, often it deposits lithate of ammonia.

HOPITAL DES CLINIQUES.

CASE OF DIFFICULT PARTURITION DEPENDENT ON AN ORGANIC ALTERATION OF THE NECK OF THE UTERUS. TREATMENT BY DIVISION OF THE NECK.

A young woman, twenty-one years of age, was admitted into this hospital on the 31st of October last, at eight o'clock in the morning. She made the following statement in reference to herself:—Her health had always been very good. She first menstruated at the age of fifteen, since which time she has been regular, the period lasting four or five days, and the flux being moderate in quantity. She says that she never experienced, during menstruation, neither pains in her back nor groins, till the last five years, when each epoch was marked by violent pains in the loins, and spasms in the abdomen resembling colic. These affections, however, continued the first day only, afterwards ceasing entirely. Her mother died in childbed.

During her pregnancy there was suppression of the catamenia. She saw these for the last time from the 1st to the 4th of February. Nothing particular occurred worthy of notice during gestation; never had any dislike to particular kinds of food, but her health remained perfect. The conformation of the patient is good.

On the 28th of October, at seven o'clock in the morning, the pains of labour first commenced, and half an hour afterwards the membranes broke. A midwife had charge of the patient for the first forty-eight hours, but, finding little progress was made, she determined to send her to La Clinique, where she was admitted, as before stated, at eight a.m.

At this time the uterine orifice was dilated somewhat larger than a centimètre; the neck was of an abnormal hardness, remained voluminous, and gave to the finger the sensation of a scirrhous tumour, existing entirely around the circumference. M. Caseaux prescribed a bath, and an application of belladonna to the indurated part.

The patient had already taken two baths before she entered the hospital. The last bath and the frictions produced no effect, notwithstanding the frequency and violence of the pains. In the evening at half-past eight the dilatation had only increased to the size of two centimètres. The exhaustion was extreme, and it became important to terminate the labour. M. Cazeaux then resolved to practise division of the neck; five incisions were made, for the most part very extensive. Scarcely was the operation finished when the head was engaged in the orifice. An hour afterwards it had passed, and from this time the labour proceeded without exhibiting anything more than what usually occurs in primiparous females. At ten o'clock the patient was delivered, the labour having lasted sixty-three hours. The infant, which was of the male sex, presented by the vertex; it was dead, and, according to its appearance, must have been so for some time; it weighed 2680 grammes.

As regards the mother, the secundines were quite normal. On the 5th of November, when visited, she had no fever; the mammæ were scarcely swollen, the lochia were moderate, and the patient had eaten two meals. Finally, there was no tenderness, neither over the abdomen nor uterus. The patient was afterwards examined with the toucher, when the uterine neck was found to be of the size of a small hen's egg, and seemed as if strangled at the base. It had a remarkable hardness, but was perfectly free from pain, and the incisions made by the surgeon could be easily distinguished. These had divided deeply, and one on the right had penetrated even to the base. The patient eventually quitted the hospital in a very satisfactory condition.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

CASE OF EXTENSIVE LACERATION OF THE LIVER, WITH RUPTURE OF THE GALL-BLADDER AND OTHER LESIONS, CAUSED BY EXTERNAL VIOLENCE; WITH REMARKS.

By Walter Fergus, M.D., House-surgeon to the Staffordshire General Infirmary.

W. F., aged seventeen, was brought to the Staffordshire General Infirmary on March 28, 1846, the wheel of a water-cart having passed over his abdomen four hours previously. The amount of shock sustained was trifling; he seemed to suffer very little, and there were no marks of external violence. The abdomen was only slightly tender on pressure; pulse 80. When seen early on the following morning, there were great pain and tenderness over the belly, and the pulse had become small and rapid. He was bled to fourteen ounces, and some calomel, with opium, was ordered to be taken at short intervals. He then vomited some bilious matter, and expressed himself as relieved. A turpentine enema, administered shortly afterwards, procured a free and healthy evacuation of the bowels. On the 30th, leeches were applied to the abdomen, after which the tenderness subsided, and the patient became in every respect convalescent, so that he got up and thought of returning home. On April 3, he was suddenly seized with extreme pain and tenderness over the whole belly, and all the symptoms of acute peritonitis rapidly supervened. On the 4th the abdomen became tumid from the presence, evidently, of fluid; and he died, without any remission of the symptoms, fifty hours after the acute attack commenced, and on the ninth day after the receipt of the injury. On examination of the body, a large quantity of bilious-looking fluid was found in the peritoneal cavity, in which were suspended some shreds of lymph; and the intestines were roughened. A laceration of the liver was discovered, extending in the direction taken by the broad ligament, quite through the substance of the organ, and to a depth of two inches and a half from the thin edge. Another laceration extended about two-thirds of the length of the convex surface in a transverse direction; but this was not deep, and was in a state advancing towards separation. The omentum was rolled up, and brittle. The gall-bladder was ruptured near its neck, and quite empty and contracted. The structure of the liver, in the neighbourhood of the laceration, presented, on section, a very red and dense appearance. Blood was extravasated around the right kidney. The other organs were healthy.

The author considered this case interesting from the absence of symptoms at an early period, evidencing the existence of such severe mischief as the *post mortem* appearances revealed. The first attack of inflammation was checked by the abstraction of blood and exhibition of calomel. The subsequent fatal attack of peritonitis he

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attributed to the bursting of the gall-bladder, and consequent extravasation of bile.

CASE OF MALIGNANT TUMOUR OF THE OS UTERI, EXCISED DURING LABOUR.

By J. M. Arnott, Surgeon to the Middlesex Hospital, and President of the Society.

The author first referred to cases of scirrhus, cancer, and other malignant growths of the uterus, in a state of pregnancy, proving the frequent fatality of this complication. He also adverted to the opinion maintained by some authors regarding the impropriety of excising the diseased parts under such circumstances, and considered the case he was about to narrate as illustrative of both the advisability and safety of the step in question. The subject of the disease (a lady aged thirty-eight) applied to the author in 1844, for an indurated enlargement of the anterior lip of the os uteri, which was rugged and granular near to the os itself: this was not tender, but bled under the examination. A consultation with Drs. Ferguson and Locock being held, it was agreed that the disease admitted of removal, as the neighbouring portion of the os uteri was healthy; but that, as the patient was at the time in the fifth month of pregnancy, it was desirable to defer operating until after the patient's confinement. Four months afterwards, the author was summoned to meet Dr. Locock, in consequence of labour being protracted by the presence of the morbid growth. This was still limited to the anterior lip and right side of the uterus, and had attained the size of a large green walnut: the tissue beyond and around appeared healthy. The diseased mass and contracted os uteri were forced down almost into view when a pain came on: hooks were fixed to the former, which was excised by a succession of strokes with curved scissors, and scarcely any blood was lost. Immediately afterwards, the os uteri expanded uniformly, and in a quarter of an hour a healthy child was born. The patient had a good recovery. On section the tumour presented a yellow colour and fibrous appearance. After an interval of some months, this patient was again the subject of frequent hemorrhage; and it was then discovered that the posterior lip and cervex uteri were the seat of a similar disease, which extended this time beyond reach. She lived until June, 1846, sixteen months after her confinement, when she died with all the symptoms of malignant disease of the womb. The author remarked that, in this instance, the lives of both mother and child were saved by the timely surgical interference; but he did not regard the case as illustrative of the usual condition met with in similar cases, which are rarely of a nature to admit of an operation under such favourable circumstances. He then narrated a case which occurred under his notice in the Middlesex Hospital, and in which the cancerous disease was much more extensive. After protracted labour, the os uteri was rent during a violent pain, and before the author arrived to relieve the tension by incisions. Two fœtuses were born at the sixth month, and the patient subsequently rallied. The author concludes by remarking, that, in cases similar to the last alluded to, incisions offer the first and best means of relief; but that, when the malignant growth is confined to a limited portion of the os uteri, the alternative of excision, as in the case first related, should be entertained.

LINNEAN SOCIETY OF LONDON.—Dec. 7, 1847.

Reported by Dr. W. H. BROWN, F.L.S.

Edward Forster, Esq., Vice-President, in the chair.

Mr. Newport read a paper "On the Formation and Use of the Air-sacs in Insects." After taking a general view of the kinds of insects in which this structure of the respiratory organs exists, and showing that whenever it occurs it is always characteristic of the perfect state of an insect, he stated that it is never found in the young or larva condition, and never, even in the perfect state, in truly wingless or apterous insects. It is almost always present in winged insects, and to the greatest extent in the most active. The manner in which the wings are begun to be formed in the caterpillar, before its last change of skin, was shown to be by the rapid growth of some little branches of trachea, and folds of the new skin that is formed beneath the old one at the sides of the segments, and by the extension of these along the sides of the insect at the next change. It is during powerful respiratory efforts made by the insect in effecting this change that the tracheæ of the body begin to be dilated into the future air-sacs. The use of these air-sacs was supposed by Hunter to be to enable the insect to alter the specific gravity of its body at pleasure, and thus to diminish the amount of muscular exertion during flight: a view which Mr. Newport also adopted long ago, although the proofs of this, he remarked, have been only inferential from the anatomy of the structures. He then showed that a vesicular form of the organs of respiration exists in the whole of the air-breathing vertebrata, as well as in insects; consequently that the anatomy of the parts, although always a safe guide, does not in this instance afford sufficient proof of the function without the corroboration of experimental observation. When examined anatomically, the respiratory organs of winged insects seem to approach nearest to those of birds, both in being distributed throughout the body as well as in their function, as in both the air-vessels penetrate into every part of the skeleton as well as into the wings. The comparison with birds holds good equally between winged insects and birds of flight, and apterous insects and birds which are not accustomed to flight; in both of which the respiratory organs are less perfect and less extensively distributed. These comparative anatomical views, in regard to the function of the air-sacs, were confirmed by some experiments which were detailed, and which had been made on a living dung-beetle, that was found to increase its respiration very rapidly, and to have its body much enlarged, immediately before it expanded its wings for flight; thus increasing its bulk, but diminishing its specific gravity, and, consequently, lessening the amount of power required to sustain itself on the wing.

On the conclusion of this paper (for which thanks were voted to Mr. Newport) a communication was read from M. P. Edgeworth, Esq., F.L.S., detailing some of the results of his researches into the Botany of India: a communication which Dr. Hugh Falconer further dilated upon, mentioning in the course of his observations the extraordinary fact that Mr. Edgeworth, having chewed some of the leaves of one of the family Asclepiadeæ in order to test the existence of the acrid property said to reside in them, immediately lost the faculty of taste as regards the saccharine flavour, being sensible only of the acidity of jam, and appreciating sugar itself but as so much sand: a state of things which was not entirely removed for four-and-twenty hours, and a recurrence of which a repetition of the experiment, both by himself and Mr. Edgeworth, brought about. Dr. Falconer remarked that, under similar circumstances, a deprivation of the power to appreciate a particular colour had ensued, but he was unaware before of anything so affecting the organ of taste. The natives, however, it appeared, were cognizant of the existence of this property in the plant.

It will be gratifying to the profession to learn that his Majesty the King of Prussia has settled upon the widow of Dieffenbach an annuity of 3000 dollars. It is fair to the King to suppose that personal gratitude has in this instance had some share in leading to the exercise of the royal munificence, the celebrated surgeon having performed a very successful operation upon the Queen under circumstances of great peril.

ROYAL COLLEGE OF SURGEONS.—Gentlemen admitted members on Friday, Dec. 10, viz.:—Messrs. T. L. Gray, H. Tizard, J. Levey, J. Adolphus, H. Lord, and E. F. Fussell.

THE MEDICAL TIMES.

SATURDAY, DECEMBER 18, 1847.

THE METROPOLITAN SANITARY COMMISSION AND THE UNION SURGEONS.

THE union surgeons are considered fair game for persecution and injustice, by every public authority that can possibly find an excuse for coming into collision with their peculiar duties. Whenever facts must be gathered, and scientific opinions on important doubts ascertained, the union surgeons are generally appealed to, as the men who, by position and acquirements, are best fitted to afford the required information.

Although their functions do not connect them with the Government, the Government, nevertheless, seems to think it has some claim upon their services; hence every commission or committee that it appoints, demands, as a matter of course, that the hard-worked, badly paid, and soul-sickened union surgeon should give his time, his talents, his strength, and his knowledge, for the benefit of that rapacious vulture the "public good," under which specious pretence more wrong is inflicted upon union surgeons than upon any other class of society.

We have recently been astounded at the fact, that the Metropolitan Sanitary Commission has forwarded to the union medical officers in the metropolis a series of forms desiderating specific information extracted from records running through a long series of years, relating to cholera, typhus fever, &c., in the different localities in which their duties lie. It is true that the union officers need not answer these queries if they do not like; but it is an unjust thing on the part of part of the Government to place a medical officer in the invidious position of declining to give that information which his coadjutor may be prepared to afford, or, on the other hand, to perform very important services, without which the valuable labours of a great Government commission will be arrested, and to receive no remuneration for the time and mental application which the duties thus imposed upon him may require.

The system is a bad one: it is in every respect oppressive to the medical man, and inefficient for great public uses. There is not a man who has given the slightest attention to the subject that does not see that it must terminate. Differences of opinion upon particular points there may be, as there will always be; but the wrongs and the indignities, direct and indirect, which the union surgeons suffer, call aloud for an early amendment of the present iniquitous and degrading system.

We think that the circulars recently issued by the sanitary commissioners, and which form only a portion of a heap of unremunerated labour that has in various ways been cast upon union surgeons, demand the consideration of those gentlemen, with a view to a deliberate protest against such manifest injustice. A stand must be made somewhere against the growing tendency to throw onerous and important duties of various descriptions upon medical men without the acknowledgment of such services by a suitable remuneration. We believe the present to be an excellent opportunity for acquainting the proper authorities with the feelings of medical men upon this subject, and endeavouring to obtain some restitution of that justice which has year by year

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been gradually filched from them, until, as applied to the duties of union surgeons, the word has changed its meaning, and wrong and degradation, under the words market price, open competition, professional advantages, form a dishonouring substitute.

As long as we have the power we will contend against the oppressions which public authorities place upon the medical man, and we shall exert ourselves to direct the energies of the profession to the attainment of those rights and that justice of which, through a long series of years, they have been deprived, and have yet made but feeble efforts to recover.

SIR BENJAMIN BRODIE AT ST. STEPHEN'S—CRAMMING AND ITS CURE.

"Euryale, audendum dextrâ: mane ipsa vocat res.
Hâc iter est: tu, ne qua manus se attolere nobis
A tergo possit, custodi, et consule longè."
VIRG. *Æneid.*

In another part of our columns we have published a portion of the evidence of Sir Benjamin Brodie, Bart., sergeant-surgeon to her Majesty, ex-councillor and examiner of the Royal College of Surgeons of England. It affords another proof, if aught were wanting, of the necessity of general practitioners looking well to themselves, and of permitting no opportunity to pass unimproved which may conduce to the safety and progression of their order. It is evident that, with certain parties, they are not in good savour, and, if we may judge from the evidence given before the Parliamentary Registration Committee, they are a class of medical practitioners, the majority of whom are only fit to attend the unpolished inhabitants of rural districts. The surgical Ajax and Ulysses of Lincoln's-inn-fields have both pleaded before the supreme council of the empire, not as those renowned Greeks, in ancient days, contending in fierce opposition to each other for the armour of Achilles, but in friendly combination to enrich themselves at the expense of a certain order in the profession. The soft words of the one, and the hard expressions of the other, are intended to teach the selfsame things—that they and their college are within a hair's breadth of perfection, while the institutions of other parts of the empire, and practitioners of another order, are as far removed from them as any two opposite points of the compass.

In illustration of our statement we take the evidence of Sir B. Brodie to witness. At the very outset of his examination, he makes a marked distinction between the science of surgery and a surgical practitioner in ordinary, declaring that while the one has, within the last forty years, made great advances, the other has remained almost stationary, or, like the tortoise in the race, has waddled awkwardly and slowly onwards. The emphatic manner in which his opinion was stated will better appear by giving the question and answer as it stands in the evidence published by authority. After he had said that he had taken part, some way or other, in the medical education of young and "older" men, the inquiry was made, "Have you observed a progressive improvement, or otherwise, in the attainments of young men studying surgery?" This he does not, in the first instance, answer directly, but says, "I think *the science* much improved;" then adds, "and that the best-educated young men are better educated than they were then; I am not aware that there is much improvement in the great mass of the students." Here there is more meaning than may at first sight be discovered, and it will be, therefore, proper to endeavour to get at it: in doing this, we shall take his own evidence as the key, so that we may not be charged, with any shadow of justice, of picking a lock to obtain possession of the treasures.

When Sir Benjamin says that the science of surgery has advanced, he intends a compliment to the magnificent attainments of himself and brethren of the order of "pures." When he speaks of the better-educated young men, he refers to those who are candidates for the fellowship. While "the mass" of students are young men who fit themselves for the possession of that renowned document vended at Surgeon's Hall for the sum of twenty guineas, and which, according to his own showing, is not worth twenty pence as a testimony of professional attainments. Hector's piper has tuned his reed upon this note for some time past, and has brought about him a shoal of Tritons which in the end may prove more than a match for him. His professional lifeboat they swamped in 1845, and compelled him to perpetrate an act of *felo-de-se* on his own corporate existence. All that now remains to him is the prestige of rank which he may think inviolably secured by the patent for a baronetcy, and the appointment of sergeant-surgeon to the Queen.

In order to depreciate as much as possible the qualification of "the mass," he tells the gentlemen of the select committee that, while the medical authorities require of students more knowledge than formerly, they subject themselves to a process technically called "cramming," by which, to pursue the metaphor, they get their crops well filled with the knowledge requisite for passing an examination at Apothecaries' Hall. The craft of trade is here but poorly disguised by the worthy baronet of an opposition establishment. The profession of late years has pronounced a very unfavourable opinion upon it, while the Company has been lauded for having effected great improvements in the education and character of the practitioners of the healing art. This, Sir Benjamin, without doubt, did not forget, as he stood before gentlemen who were intimately connected with the aristocracy of the country, and he would, therefore, desire to obliterate the stigma which was branded on his college. Cramming, therefore, he would wish it to be understood, was principally confined to those who went up for the certificate; while the majority of candidates for the diploma were entirely guiltless of submitting to this reprehensible process. With all his attempts, however, to make the diploma as clean a piece of paper as ever issued from a liscensing body, he failed in accomplishing the desire of his heart; hence, he says, "to a certain extent it has extended to the examinations of the College of Surgeons. I suppose there can be no examination of any kind instituted any where, for which a certain number of young men will not be crammed; but it is so general as to the preparation for examination at Apothecaries' Hall, that a well-informed young man scarcely ventures to go up there to get a licence without being first crammed." This latter part of the answer rather puts us to a *non plus*, as we were led to suppose that none but those deficiently educated submitted to the process; but here we learn that "well-formed young men" dare not go up till they receive additional stuffing to that of the lecture-room.

We know not how it was in the days of Sir Benjamin's pupilage, but in our own, those who patronized "crammers" or "grinders" were those who had shallow pates and deep pockets—young men who sported away much of their time at the theatres, the tavern, or the ballroom, and who afterwards endeavoured to make up for the want of sound knowledge by the possession of superficial acquirements. That many students who go up to the Hall are crammed we admit, but the principal source of income to the crammers arises from those who are about to become candidates for membership of the College; and the unrecognised teachers can tell to a dead certainty who will be successful, and who rejected, of those under their superintendence. Had the surgical baronet belonged to the school of the ancient Greek philosopher, who rendered himself renowned for the magnificent funeral with which he honoured a favourite goose, but who taught his pupils to suspend their judgment and never speak decisively, we should not, at the present time, have been compelled to call in question the correctness or propriety of the statement referred to above. It is evident that some one must have "crammed" Sir Benjamin, prior to his examination, for it is a fact universally known in the profession, that many who, in early life, followed some less honourable calling than that of surgery, have gone up to Lincoln's Inn-fields with certificates procured in the proper places, and with knowledge forced in their heads at a high pressure, which latter commodity escaped there *ad libitum*, to the entire satisfaction of the court of examiners. The Taunton pastrycook is a striking example of this kind, for in the short space of thirteen months he completed his education, then "crammed" the College, and, as a reward for his abilities, finally received its diploma. This was purely a surgical speculation, as the illustrious candidate could not so far demean himself as to do penance in the Apothecaries' funking-room, or to submit the stores of his knowledge to be ransacked by the Blackfriars inquisitors. Gentlemen of his class spurn a certificate, and bid defiance to all penal laws which are intended for the protection of apothecaries.

It is time that the mere teaching of words should give place to practical information; the remedy is obvious and easily employed—that of having the dead body before the candidates, upon which they may be examined. The baronet acknowledges that this would be a sure remedy for a crying evil. Then why not at once adopt it? "I approve very much," he says, "of actual dissection as a real test of knowledge and of sounder acquirements; but I am afraid it would be difficult under existing circumstances to make it general for the members, on account of the difficulty of procuring subjects." Indeed, Sir Benjamin, and is this the principal difficulty? Certainly not: it is the price which must be paid in order to procure them. Ulysses, in order to avoid the dangers of the Trojan war, feigning himself mad, ploughed the seashore; and the sergeant-surgeon, in order to secure a good income for the college examiners, pretends that there would be a difficulty in procuring subjects when only candidates for membership are examined, but none whatever when the fellowship is sought. The difficulty lies in the purse and not in the market. Pay a good price and the worshipful company of body-snatchess would be found humble and devoted servants of the College; or surely there are subjects in the different dissecting-rooms of those who are anatomical or surgical teachers connected with the College, which could be furnished for an exa-

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mination on some particular part, and then returned. The fact is, the College has no wish to raise the standard of medical education for *the mass* of students, and, while it pretends to condemn crammers, it is the principal patron of them. The Company may laugh to scorn the attempts of its neighbouring corporation to place the whole burden of defective medical education upon its back, for the profession has already passed a righteous verdict. The sentence has not yet been pronounced, but we trust that corporate superciliousness and double dealing will be punished by the establishment of a new college, in which the general practitioners shall exercise a legitimate influence in all matters concerning the welfare of the profession.

THE SCIENCE OF SURGERY AT THE GLOUCESTER INFIRMARY.

Sir Benjamin Brodie, in his evidence before the Medical Registration Committee, said that the science of surgery had made great progress within the last few years; and we have concluded that he wishes it to be understood through the instrumentality of members of the profession practising in connection with the public hospitals. At the Gloucester Infirmary, however, it appears that the science, instead of moving onward, is advancing backwards.

Our attention has been directed to the case of a patient admitted into that institution last August, in consequence of having received a compound dislocation of the ankle-joint by the overturning of an omnibus, in which he was proceeding to his own home. He was immediately conveyed to the infirmary, where he remained *ten weeks* with the tibia exposed, and the dislocation unreduced. His friends, beginning to feel dissatisfied, had him removed home, and in three days afterwards amputation was performed by Mr. Batten, of Coleford, and the patient has since recovered.

The facts of the case having become public by appearing in one of the local papers, an advertisement followed in the *Gloucester Journal*, signed by Mr. Charles Weaver, clerk to the weekly board, announcing that the said board had met in order to institute a searching examination into the circumstances attending the treatment of such a case. It arrived at the conclusion that the newspaper statement was extremely incorrect, the dislocation having been reduced immediately after the patient's admission into the hospital, and that every possible care and attention had been paid to him during the whole time that he remained there.

That the board should arrive at this opinion we are not at all surprised: official persons in charitable institutions being always afflicted with such a defective state of vision as generally to see nothing in the shape of imperfection in places under their inspection till the public has forcibly opened their eyes. To the Norwich hospital board the effluvium of dirty towels and sheets was as sweet-smelling incense, and the members blindly thrust their noses amongst the foul linen, declaring it clean, sweet, and fit for the use of any sick persons. The Messrs. Dalrymple, however, had keener scents and sharper eyes than the officials, and it has been only by active treatment that they have recovered the use of their organs and set about remedying the grievances which exist in the hospital.

The official declaration of the Gloucester board called forth a rejoinder from Mr. Batten, the surgeon, who says that he first visited the patient in the infirmary at the request of Mr. Henry Ridler, and with the sanction of the surgeon who attended the case. The patient then presented the following appearances:—

"Body extremely emaciated; countenance pale and anxious; left thigh drawn very much upwards and outwards, and the leg contracted upon the thigh, so as to approximate the heel to within about fifteen inches of the buttock. The leg was lying upon its outer aspect, with no other support than a pillow; and at the inner ankle was a large wound, through which a considerable portion of the end of the tibia was protruding. The bone was surrounded by a pool of matter, and a portion of it, about two or two inches and a half in length, and an inch or an inch and a half in breadth, appearing above the surface quite dry, without periosteum, and blackened by contact with the dressings. By slightly depressing the foot, nearly the whole of the articulating surface of the tibia was brought into view, entirely denuded of cartilage, and the projecting process overlapping (if I may use the term) the integuments of the inferior edge of the wound, which looked soddened by the matter, and as if it had been in that position for some length of time.

"The joint itself had all the appearances of being completely disorganized, which proved to be the case upon an examination after the removal of the limb. To say that 'the dislocation was reduced immediately after the patient's admission' is only aggravating the charge of bad management, for, if such had been the case, proper steps should have been taken to keep the bones in apposition, whereas, as far as I can learn, no mechanical appliance whatever had been used for that purpose for some weeks prior to my visit."

In corroboration of his statements he refers to Mr. Tuckwell, of Sidney, and Mr. J. Teague, of Blakeney, surgeons, who met in consultation upon the case, and assisted at the operation. Mr. Batten has also in his possession the offending extremity of the tibia, together with the other bones which enter into the formation of the ankle-joints, and he says that he shall be glad to submit them to the inspection of any surgeon.

It is but right, we should add, that in consequence of the charge being reiterated against the infirmary, the board again met, and again stated that nothing could be discovered to induce an alteration of the opinions before expressed, and a statement has been published by the surgical officers of the institution in which they say—

"The injury sustained by the soft parts over the inner ankle occasioned them to slough, and the bone became consequently exposed. Abscesses formed up the leg, nearly as high as the knee, and appropriate openings were made for the exit of the matter. For some time the constitutional powers indicated the probability of saving the limb, but at length, when that expectation could no longer be entertained, and the patient's general condition rendered it justifiable, amputation was strongly recommended, to which the patient did not consent, but subsequently left the infirmary without the concurrence or knowledge of the surgeon under whose care he was.

"With regard to mechanical means, such were employed as were applicable to the circumstances of the case; but towards its conclusion, the tender and ulcerated state of the soft parts about the ankle rendered the pressure of splints inadmissible; they were also unnecessary, as the dislocated bone was never displaced after its first reduction during the whole of the time the patient remained in the infirmary."

For the sake of the hospital, we would suggest a further and searching examination into the whole matter. It is due to the public and to the surgeons. The friends of the patient justly complain that neither they nor the three surgeons present at the amputation were called before the board. Mr. James Ridler, therefore, calls it a one-sided investigation, and says that, till a full investigation has taken place, he shall consider that his brother was improperly treated.

THE POOR-LAW GUARDIANS.

We hear, with considerable regret, that several boards of guardians are exhibiting a painful hostility to the objects and doings of the Poor-Law Convention.

To remonstrate against this ill feeling would, in these pages, be of little service; but we may yet avail ourselves of the occasion for registering the fact, that never was hostility more undeserved or ill timed. Union surgeons are at this moment doing no more than this—bringing before a competent tribunal the actual state of a system under which, as they contend, boards of guardians, no less than themselves, suffer. Investigation at this moment is the utmost limit of our aims. We want the truth, the whole truth, and nothing but the truth; and to stand between us and this great aim (in which, by the way, such large responsibilities are involved) is surely not so much to damage us as to place themselves in a false, a shameful, and an odious position.

It is some consolation that, in this unfortunate course of policy, there are no more respectable leaders or exponents than the very singular gentlemen composing the board of guardians of Chesterfield. There is about their conduct, as Mr. Spooner well shows, so prominent an amount of heartlessness and absurdity, that the more they display their literary illuminations, the better warned are others of the perilous coast on which, as unconscious beacons, they stand.

To the medical officers themselves not much either of encouragement or of caution is required. Events have already shown them that they have a conquering and successful cause; and that to be faithful to it, through temporary discouragement and difficulty, is the only condition necessary to a great, an early, and a full triumph—a triumph of importance to the profession, but of infinitely greater significance to the large body of our destitute sick.

We urge, then, by word, as we might by example (that of Holborn not forgotten), a warm and generous co-operation with the Convention of every union surgeon, and, indeed, of every member of the profession. The public voice is incontestably with us: we have the advocacy of every section of the popular press; a good cause sustains us and disarms real hostility; let us, then, individually be true to the favourable circumstances that have been made to surround us, and by no act of ours, least of all by timidity, forfeit the boon they so obviously offer us.

CHOLERA AND INFLUENZA.

From the accounts which we receive, there appears little doubt that the cholera will not be long before it visits our shores. Already it has reached Venice and Warsaw; and, though it has been occasionally said that the mortality produced by it is not so great as in 1832, yet in some parts of the Russian Government one in two of those attacked has actually perished.

It behoves the inhabitants of this country to make all possible preparation for the reception of so fearful a disease. While the scourge cannot be kept off from our island, its virulence may be

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much lessened. In order to accomplish this, it is imperative on individuals to pay especial attention to hygienic rules; and those who have been favoured by Providence with worldly possessions should come forward to the assistance of the poorer classes of society. The safety of the rich is closely connected with the welfare of the poor, for when a fatal epidemic breaks out amongst the latter, it is sure to extend its ravages to the former.

We are glad to find that the Government is beginning to use such means as are at its disposal to meet the impending calamity; and the Health of Towns Association is actively engaged in drawing public attention to those fearful sources of disease—the drains, sewers, stagnant ponds, overcharged burying-grounds, ill-ventilated and badly-lighted dwellings. The set time to favour the society is at hand, for the fear of the cholera will do more for the passing of a good measure of sanitary reform than the speeches of the most eloquent philanthropists.

But, while sanitary measures and attention to hygiene may do much to mitigate the virulence of the disease, they cannot now prevent its arrival. The peculiar state of the atmosphere, and its influence upon the constitution, tell but too plainly that it has much to do with the advance of the cholera. The influenza has spread over Europe, and has been felt with peculiar severity in this metropolis. High and low, rich and poor, young and old, have been attacked. It has almost emptied places of worship, has seriously interrupted the business of public offices, has closed many schools, and temporarily marred the happiness of the domestic circle.

The bills of mortality tell how fatal it has been. The autumnal weekly average of deaths in the metropolitan districts is 1046. In the week ending Saturday, Nov. 27, the total deaths were 1677, being 90 a day above the average. In the week ending Saturday, Dec. 4, the total number of deaths was 2454, or 200 a day above the average. During the last week, ending Dec. 11, the average increase was 1370. In the twenty-one days, therefore, ending Saturday last, there were 3408 more than usual. Such a mortality has not been known for many years, for the cholera, amongst us in 1832, did not prove so fatal, only 5275 extra deaths occurring during a period of about thirteen weeks; while, in the short space of three weeks, we have, from influenza principally, an excess of deaths above the average of 3408.

We are not of the number of those who would unduly excite the fears of the public, and we condemn all efforts of this kind made by others. We think that there may be attempts to get up cases before the cholera actually arrives, and already there have been flying reports that some persons have certainly died from this disease. This is not true, however, and we do hope that the public and the profession will act prudently before the scourge reaches our shores, and vigorously afterwards.

APOLOGIES.

We have pleasure in publishing the following very full apology, enunciated by T. Wakley, Esq., M.P., in the House of Commons, on Wednesday. We are assured by those who know the character of Mr. Jones Loyd, and the nature of the attack made on his probity, that the reparation did not come before it was necessary:—

"*Mr. Wakley moved as an amendment, that the name of Mr. Hume be left out, in order that the name of Mr. Muntz might be substituted. The hon. member added, I wish to take this opportunity, on the first occasion of again addressing the House, to express my great regret that I made a reference to a gentleman who is not a member of this House, which reference I sincerely feel that I was not justified in making: (Hear, hear.) I acknowledge that in making it I was guilty of an offence towards the House as well as towards the individual—(hear, hear)—I am sorry for it, and will not commit the same offence again.*"

To Dr. Dawson, who had been placed much in the same position, the following reparation was made by the same gentleman:—

"Apology.—We regret to find that an article appeared in our number of the 22nd ult., reflecting upon the character and professional reputation of Dr. Dawson, which, upon inquiry, we find to be unfounded. We, therefore, as an act of justice, repudiate the animadversions alluded to, and take an early opportunity of stating our belief that they were undeserved, and of expressing our regret that they were inserted in our pages.

"*Lancet*, Dec. 7."

Dr. Culverwell, the well-known author of "What to Eat, Drink, and Avoid," likewise had the honour, from the same source, of a similar *amende* not less plenary.

We notice these graceful symptoms of reparatory contrition with considerable satisfaction; and suggest that the hon. member cannot do better than dedicate the rest of his life to similar acts of atonement and penance. In that field of tardy piety there remains for him Herculean work, which would well reward—well justify—years of anxious toil.

THE LATE MR. LISTON AND THE STETHOSCOPE.

[FROM A CORRESPONDENT.]

In medicine, as in many other practical sciences, there is a *fashion* which cannot be combated, far less overcome, by reason; and nothing but the experience of society—an experience more or less prolonged—can possibly correct prejudices and effect a salutary change. He who would attempt to convince or to shake the faith of a disciple of Mesmer, of Hahnemann, or of Priessnitz, in the absurdities of their respective systems, would be grievously disappointed if he expected to change their opinions; and it is a fact which cannot be denied, that the most intellectual and the most distinguished members of the community are those very individuals who are the most frequent victims of the charlatan. It was not until Baron Dupotet, aided in his wicked purposes by some of our countrymen, was publicly exposed by the *confessions* of the very person whom he had reared and educated for his crafty and nefarious purposes—it was not until the notorious St. John Long had brought to an untimely grave some of his ill-fated patients, that the eyes of the public were opened to the fallacy of his pretensions; and we need never expect to hear of the death of mesmerism, of homœopathy, or of the "cold-water cure," until some flagrant examples of their pernicious effects happen to be brought to light in a court of law, or before some other public tribunal, and thus leave no doubt on the minds of the most incredulous that the whole of such systems is based on falsehood and deceit, and that the persons who practise them are impelled to do so purely for the base purpose of worldly gain.

These remarks are called forth at this time from the more than ordinary excitement which has been produced by certain circumstances attending the death of an eminent medical man, an error in opinion of no ordinary magnitude having been repeatedly given during the progress of the disease by no less than four *eminent* physicians, all professing to have the most perfect confidence, and more than common discriminating powers, in the use of the stethoscope, disregarding at the same time all those diagnostic means which are resorted to by those men who do not repose such unbounded confidence in, or trust alone to the physical signs which are afforded by auscultation. Perhaps there could not have happened a case to bring into contemptuous notoriety, and point out the fallacy of stethoscopic examination so strongly, as the lamentable result of that practice on the unfortunate Mr. Liston; for it cannot be denied that, had he been under the care of those who were acquainted with the real nature of his disease—had Sir Benjamin Brodie, who never hesitated to pronounce its aneurismal character, been consulted *months*, instead of *hours*, before the death of the unfortunate sufferer—a valuable and useful life, if not saved might have undoubtedly been prolonged, and his sufferings greatly mitigated.

The lamentable result of Mr. Liston's case, and the almost incredible mistake of his advisers, will, however, have the good effect of exposing to public criticism and animadversion the degrading system which has prevailed of late years in this country, of having recourse to frequent and unnecessary stethoscopic examinations: degrading we have designated that system, because *we know* that it is employed for no other purpose than to enable an opinion to be given, with a colouring of scientific accuracy, of the precise nature of the disease which cannot be easily contradicted, however erroneous, and of creating a most cruel and unjustifiable impression on the minds of patients.

The stethoscope is likewise made use of by another class of medical men, for whom some apology is justly due, as they hesitate not to declare that, whenever they do employ it, they do so absolutely in *self-defence*, and not from any diagnostic advantage they derive from it: for so important has the parade of a stethoscopic examination been considered in public estimation, that, in order to prevent the imputation of negligence when consulted about diseases of the chest, they are induced to make their patients submit to all the trickery of auscultation. It surely, therefore, is not unreasonable to entertain a confident hope that numerous members of the profession will now come forward and expose the many and serious errors which have arisen from the improper use of the stethoscope, and from the neglect of other and more important diagnostic means; and that they will no longer hesitate in declaring their opinions of the fallacies and unworthy motives for which a useful instrument has been too much employed. And with confidence we can assert, that there are many honourable and distinguished members of our profession who are perfectly aware of the serious evils that have arisen from the use of the stethoscope; but who, from the overwhelming tide of public opinion, or rather of *fashion*, and the well-known influence of quackery on the human mind, have not possessed the moral courage to expose and reprobate the injurious and disgraceful conduct of which we have so earnestly and gravely complained, and of which we will lose no future opportunity of bringing before the more enlightened and honourable portion of our profession.

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POST-MORTEM EXAMINATION OF THE BODY OF THE LATE ROBERT LISTON, ESQ., F.R.S.

In our last number we announced the death of this distinguished surgeon, which took place on Tuesday week. The cause of his death, which, previously to the autopsy, was involved in some obscurity, proved to be an aneurism close behind the left carotid artery, at the origin of the innominata. His last illness, which commenced in October, was marked by a cough, which ultimately became frequent and distressing, attended with expectoration, which was not only difficult but was attended with occasional dyspnœa. On the 4th of December, three days before his decease, the breathing became more difficult, deglutition was only accomplished by considerable effort, and the cough also was very troublesome. After the loss of about twenty ounces of blood by venæsection, all the symptoms were relieved, and on taking a dose of muriate of morphia he rested calmly during the night. Up to the period of his death very little change occurred; his weakness, however, gradually increased, and, after a severe attack of dyspnœa, he died at half-past ten o'clock on the evening of the 7th.

Mr. Liston's disease may be really traced to a severe shock which he received upwards of two years ago on board his yacht, being knocked down by a part of the rigging which had fallen, throwing him violently on the deck; and so severe was the concussion that it was necessary to give him cordials to restore animation. From the date of this accident, those who knew him best declare that he never was the same man again in all respects, for, notwithstanding that he continued to take a great deal of walking exercise, yet it was observed that he avoided hilly ground. It was not, however, until last summer, when the elements of the serious disease of the chest, of which he has died, became too evident by his spitting up, as we last week mentioned, a large quantity of blood, estimated between thirty and forty ounces. From that time, besides the local symptoms caused by the aortic aneurism, he had frequent paroxysms of dyspnœa; but so mistaken were his eminent medical attendants on the true nature of his disease, that, up to the period of his death, the treatment which was adopted had solely for its object the relief of a spasmodic asthma; and so unhesitating were they in this opinion, that not only was he strongly advised by them to go to the Mediterranean to spend the winter, but he was allowed to pursue his usual habits of taking all kinds of strong exercise. It is humiliating to reflect that so valuable a life should not have been prolonged, from the most extraordinary error of gentlemen so generally confided in, for during the many months' illness of the unfortunate patient, it appears that he had repeatedly submitted to what, in this case at least, was the solemn pedantry of stethoscopic examinations by Drs. Forbes, Williams, Watson, and Latham; and it was only on the day previous to his death that he saw Sir Benjamin Brodie, who at once pronounced the disease to be aneurism: too late, alas! for Mr. Liston to derive any benefit from the services of this eminent professional brother.

Post-mortem Examination.—The lungs were found but slightly collapsed, congested throughout, but otherwise perfectly healthy; the pericardium contained about an ounce of transparent yellowish serum; the heart presented a slight atheromatous deposit in the mitral and aortic semilunar valves. On removing the subclavian vein and cellular tissue from the arch of the aorta, an aneurism as large as an orange, flattened from before backwards, was found pressing back the trachea; it arose from the upper part of the arch, close behind the left carotid artery, at the origin of the innominata, which seemed almost to commence from the aneurismal pouch; the communication with the aorta was by a circular opening, as large as a half-crown. On opening the trachea from behind, the mucous membrane was seen to be very dark and congested, and in its front part, where it was firmly connected to the tumour, there were three or four whitish prominences, as large as split peas, situated between the rings; on slitting up the pouch and removing the fibrinous laminæ, they were drawn from between the ring, leaving the latter quite bare, and the trachea perforated in three or four points; they were found to be portions of the clot, which half filled the sac of the aneurism.

COPY OF A LETTER TO THE BOARD OF GUARDIANS OF THE WALSALL UNION.

TO THE CHAIRMAN AND BOARD OF GUARDIANS OF WALSALL UNION.

GENTLEMEN,—You have known me as a public servant of the union for eight years past, and I am proud now to refer to many expressions of yours commendatory of my professional conduct during that time.

You also know that I am one of the medical officers of unions at present co-operating with others of our profession in an attempt to place the union salaries of medical officers upon a more equitable footing in regard to the services required by law from said officers, than they are or have been generally since 1837.

On these accounts you must see that I am one of those assailed in a slanderous and self-contradictory paper, put forth by the board of guardians of Chesterfield union, and circulated to other boards of guardians in England.

Were it not that the issuers of this paper might flatter themselves, in consequence of its being unnoticed, that either its statements, or what they call its reasons, were correct, I certainly should not have paid so poor a compliment to your self-esteem, intelligence, or honesty, as to think it requisite to trouble you with any observations upon this document.

But as it does contain charges which are unfounded, statements which are untrue, and reasoning as absurd and erroneous as the premises from which it is adduced, I feel it a duty to myself and professional brethren engaged in the movement alluded to, to point out its demerits.

"First," there is not any "combination of certain medical officers of unions" for any "compulsory" purpose whatever; but the "Convention of the Union of Medical Officers" have, on the contrary, entirely repudiated, and denied "*in limine*," and now repudiate any such unfair or illiberal construction. They have avowed their object, again and again, to be the showing from the records of the several unions of England, for some years past, that the system of affording medical relief to the poor was in many respects vicious, wasteful, and requiring speedy and prompt amendment; and that the amount of salary and method of remunerating the medical officers was disproportioned to the labour performed, and onerous responsibility incurred, by the medical contractor; and unsatisfactory alike to the medical officers themselves, and very generally to those guardians and rate-payers who have conscientiously taken the trouble to reflect maturely on the subject. And be it remembered that this course, on the part of the medical officers, involves, in fact, the taking the evidence of the boards of guardians themselves on the subject; and we did and do hope, that when we have made out our case, by such respectable testimony as is now collecting from the union abstract-books of England, we will have no great difficulty in convincing the Government and the poor-law commissioners that the plan of fixing the amount of medical salaries in England, upon a five years' average of the work done in each district or workhouse, is more economical, more honest, and likely to ensure a more efficient medical relief to the sick pauper, and place the medical officer in a more reputable situation as regards those boards, who (like these Chesterfield "gents") see nothing more to be desired than to "lot off" and "farm out" the bodily welfare of "their" poor to the most needy or least scrupulous doctor, if he will bid for them at the "lowest market price."

The reasons given by these worthies for having thus imputed evil motives to the Medical Convention, and for not wishing any change "at present," when divested of the meaningless farago of words in which they are dressed, are simply, "first":—"The medical men have no just grounds of complaint" (they must be 'just' if grounded at all), because they make contracts to perform a "specified work" for a stated sum, and then Hurst and Company feign astonishment that any one should trouble himself about so "ordinary a matter of business."

Now, I will not condescend to bandy assertions with these men—it would not be respectful to you or myself—but you shall judge of the nature of the "specified work" as well as of the impossibility of "specifying" the "work" (even for one week, let alone a quarter or a whole year) to be done by your medical contractor. The fact is taken from your own abstract-book, and, I doubt not, had these indignant and astonished guardians consulted the archived records of their union, they could have come nearer in their guess.

I hope it will not turn out that they have consulted their abstracts, and that they do know better, because, although I am sorry enough that thus broadly they should show their ignorance of the nature of their own business as guardians, and exhibit thus clearly their indifference to the arithmetical statistics of their own union books, yet I should be quite grieved were it to turn out that they have published errors, knowing them to be such.

Take the fact opposed to the Chesterfield "talk," and judge for yourselves how far the said "palaver" is to be depended upon. In the Walsall union the number of sick paupers of all ages and sexes was, for the year ending Lady-day,

1838	1463
1840	829!!
1843	3269!!!
1846	1800

Is not this "specifying" work with a vengeance? How would the contractor in 1840 calculate the probabilities of 1843? or, how could the guardians of 1843 judge of the proper amount of medical salary for 1846? It is impossible!!

The bare truth is, as averred by the Medical Convention, that neither medical man, guardian, commissioner, nor any one else, has, "at present," any data upon which a calculation to approximate the "specification of work" to be done can be based (Fie! for shame, Chesterfied, you should take care when you elect guardians); and, therefore, we "combine," if Chesterfield likes the term, not to levy a "compulsory salary" from the "boards of guardians," but to force upon their attention the simple conviction of their utter inadequacy to know what ought to be the fitting remuneration, and the amount of the labour done, unless some average over a series of years be taken as a sort of standard.

And we are to be bought at the "market price," forsooth!! (Oh, ye hucksters of Chesterfield! Are your intellects after the pattern of your steeple?) Well, we will admit the "market price" as the standard of our services, but no thanks to you for trying to "rig" the market for all that. Give us the market price, if you can settle that, but give us the "market privileges" also, viz., the "counterfeit pretensions"—the "unblushing garnish of lies"—the total disregard of any confidence, and the determination to take every advantage and overreach all, guardians, rate-payers, and paupers, to any extent short of *banco reginæ*, or a Chancery injunction, and then we shall stand on something like an equality of footing with they of Chesterfield, and a "bonny spat of wark" there will be. Under such a reign of terror, I would rather trust to the mercy of "hemp and faggot" than be a sick pauper in Chesterfield union.

They really think "it would be more reasonable for the medical practitioners to right themselves." Ah, the funny "buffers," they're joking surely, for what does their circular say? why, in effect, that they view with astonishment the present moderate movement of the "medical practitioners," not "to right themselves" (as they cunningly insinuate), but to show the true state of facts, and trust to the constituted authorities of the land for "righting" them, with the fullest confidence in their love of justice.

And again, "2ndly," as they say, "We are prepared to admit that the 'money (Oh, deity of the Chesterfielders!) payment' is clearly insufficient as a remuneration for their services"!!! Why, gentlemen, may I ask, do these good folks suppose that the Walsall and other guardians are manufactured of cast iron, or that, being of "mortal mould," Pro-

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vidence has denied them mortal intellect?—that they dare venture to send you a copy of a document, every object of which seems utterly prostrated by this admission, and think that such an absurd attack upon your intellects could pass undetected. No, truly! they dared not do that, it seems, for they try to cloak the insult to your understandings by another of their "reasons," and here it is. Because, forsooth, it is "proved" to these guardians "that there are some indirect advantages annexed to the office, which, in the estimation of the medical men" (not the estimation of the Chesterfield board of guardians. Oh no! the innocent dears, no secondary advantage suits them), "are of no inconsiderable amount." Pretty fools, therefore, their medical officers would be to complain.

Gentlemen, the "annexed advantages" are "indirect," indeed, so much so as never to have reached the "parish doctor" in England. But, perhaps, we may differ in opinion as to what is an advantage, and these "mare's-nest" finders may calculate that a preparation for a better state in the next world is one "indirect" advantage: seeing that mortification of the flesh, charity, and a constantly going about doing good (we are told) serve to that end, especially when combined with lowliness of mind, humility, and a disposition to turn the other cheek to the smiter. Yes; it must be so! And some day or other we shall have the triumphant announcement from the Chesterfield guardians that some "poor doctor" has gone to heaven, "proved," by their admission that they had never paid him anything here for his good deeds, but had humbled him enough to make a saint of him at least. Or, perhaps, at Chesterfield, the indirect advantage annexed to the union doctor's "money payment" may be that, by submitting to have his services taken unrequited, he is keeping in favour with the "little great" of his district, who may have (as has been elsewhere done) given him a hint that, if he grumbled, they would "introduce another man"! Well-chosen phrase! I hope another gentleman could not have been got for such a purpose.

Reason 3rd denies the allegations of the Medical Convention as to the inefficiency of medical relief, because of the insufficient remuneration to the medical officers; and they call for proof. They have it! —by looking into their own hearts, if they are human beings. They have it again!—by reading their Bibles, where the ox who treadeth out the corn is forbid to be muzzled. Again!—in the practice of all the paid institutions of this land. Again!—in the admission on all hands that withholding a fair day's wage, is the surest way to lose a fair day's labour. And again!—in their own conviction that in the nature of things it must be so as long as doctors are men, and not angels. And, finally, I sincerely trust they will be amply furnished with proof of the truth of our allegations in the better order of things which will dawn out of the self-sacrificing endeavours making by certain medical men (sorry I am that I cannot say all) to procure for the poor and sick man that full, free, and proper medical assistance in his need which the law of just England gives him as unalienably as any acknowledged right of mortal man; and also for the labourer in the medical field that fair remuneration for his services which all honest men delight to give their labourers. "Lastly" is a compound of a truism and an error separated and put right in the preceding remarks.

And now, gentlemen, I should have taken leave of this subject by observing that, whilst repudiating the efforts of the medical officers, these good folks do not forget to pay themselves a left-handed compliment when they say, "We are of opinion," in "every case of neglect"!! or "wrong treatment"!!! which has come under our notice," &c. Why, they must be very "admirable Crichtons" to be able to criticise the practice of their surgeons. But it does not stop here. These guardians of the sick poor hereby admit that there has been "neglect"! and "wrong treatment"!! by the medical officers of Chesterfield union!!! because it has come under the notice of the Chesterfield board of guardians—at all events, of Mr. Hurst and Mr. Haslehurst. Now, I should like to know how were such cases (they say "every case;" then, many which came "under their notice") dealt with? Was the coroner asleep? Are his fees so low at Chesterfield that he, too, "to live," must be guilty of "neglect" and wrong "treatment" of the sick paupers? Were the poor bodies "quietly inearthed" with all their sins about them—sent unannealed to their long account? or were the poor-law commissioners duly appealed to, that the protective power of the law might be invoked? Were the neglectful or wrong-treating sent to the right-about with a proper admonition? or was the "market price" made to rule a little lower in consequence? These, perhaps, are the "Mysteries of Chesterfield" (Oh! spirit of Eugène Sue, what are you about?). But is it too late to have a proper inquiry made? Is this "neglect" and "wrong treatment" of the Chesterfield sick paupers, thus frankly admitted by their guardians, of "ancient account"? or are the cases which have come under their notice "modern instances"? Surely the poor-law commissioners might feel it to be their duty to inquire. At all events these are important questions, and Mr. Hurst and the Chesterfield guardians would do well to endeavour to rid themselves of the horrible imputations attaching to them, in consequence of their own admission that there have been cases of "neglect" and "wrong treatment" of the sick poor "which have come under their notice," and this they can, perhaps, do by giving the facts to the world.

Gentlemen, with every sentiment of respect for you, individually and collectively, I remain, your faithful servant,

JNO. BURTON.

King-street, Walsall, Dec. 13.

MR. SPOONER ON THE CHESTERFIELD UNION.

[To the Editor of the Medical Times.]

SIR,—When I read the document addressed to the poor-law commissioners by the Chesterfield board of guardians, I at once divined the *animus* and the motives of the whole proceeding. You call it in your leading article "one of the most incomprehensible of psychological phenomena developed since the days of Don Quixote." Allow me to enlighten your editorial simplicity, and to afford you a clue to the whole enigma. In the thirteenth annual report of the poor-law commissioners (1847) you will find a tabular list of unions, their area, population, expense of medical relief, &c. &c. I have extracted from two of the tables thus published the following facts:—

	Area in Statute Acres.	Population, 1841.	Cost of Medical Relief.		
			£	s.	d.
Chesterfield	85,732	39,379	330	10	0
Dorchester.....	70,810	16,121	330	0	0
Blandford	66,590	13,598	321	5	0

It will here be seen that the Chesterfield board is one of the most parsimonious in the kingdom; its meanness is only equalled by its unblushing impudence. It pays its medical men about twopence a head on its gross population for paupers scattered over a circle whose diameter must be fifteen miles! I have appended my own union and its nearest neighbour merely by way of comparison. There is an old adage, that "the worst spoke in the wheel generally squeaks the first." The alarm of the Chesterfield board at the formation of the Poor-law Convention is exceedingly natural: it is very much of the same character as that of the swell mob when they anticipate the approach of the detective police. They endeavour to throw dust into the eyes of their pursuers by a few scraps of political economy. Mr. Buller will no doubt appreciate their valuable advice. "We cannot forbear noticing that, whenever a vacancy occurs, there is seldom any lack of duly-qualified candidates for the office, and often much pains taken to obtain it," the office "being simply of the nature of an agreement betwixt two parties, whereby the one undertakes to perform a specified work for a stated sum to be paid by the other." "The competition which exists reduces the standard of prices." These little aphorisms of political economy are well worthy the commissioners' consideration, coming as they do from that enlightened place, Chesterfield—"Et mutato nomine de re fabula narratur." Alas! Mr. Buller, the next thing I expect from the wonderful sagacity of the Adam Smiths of Chesterfield will be a proposition to Lord John Russell to advertise for the lowest tender for the office of chief commissioner. Perhaps some such sage plan with regard to the new bishoprics might save him the annoyance of any future Hampden controversy! I know nothing at all of Chesterfield: the only thing I have heard of the place is that the spire there is very crooked and out of the perpendicular; the board of guardians there appear to have a moral obliquity, and are quite as far from being upright in their dealings with their medical officers as they are shameless in their justification of their misconduct.

I am, Sir, your most obedient servant,

Blandford, Dec. 15. E. O. SPOONER.

COPY OF A LETTER ADDRESSED TO THE HONORARY SECRETARY OF THE POOR-LAW MEDICAL COMMITTEE, T. PIERS HEALEY, ESQ.

SIR,—I return the schedule, with the inserted facts; I trust they may promote your arduous but most meritorious undertaking.

Any suggestions as to rate or mode of poor-law medical payment I beg to defer, because, though of extreme moment, I view them subordinate to the still grander desideratum, diminution of poor-law medical duties and responsibilities. The latter object is effectible only by, to a large extent, divesting the poor-law surgeon of the formidable burden, victualling the poor! At present the parish doctor's hygienic fully equal, if not exceed, his remedial avocations. Reference is not intended to acute cases where the ordering food is subservient to, and purely a part of, the medical treatment, but to those legion cases which in their alpha and omega arise from and depend upon under-feeding or innutrition.

This proposition contains two divisions of cases:—

1. Cases of chronic "symptomatic" substarvation dating their commencement from palpable, protracted violation of hygiological conditions—of the laws which regulate what Müller terms the "vital stimulants."

Scrofula in all its appalling guises, imbecility, idiocy, phthisis, cancer, and other structural diseases, range under this group; and, wholly irrespecting their cause, doubtless the practitioner's legitimate province is here to see that proper food be supplied.

But class 2 remains. Its diseases may be aptly termed diseases of acute "idiopathic" substarvation; and these are the cases in which the medical practitioner's valuable time is most vexatiously, unjustifiably engrossed.

Emaciations, dyspepsies, multiform in complexion and symptom, unknown beyond the limits of pauperism; stomach-qualms, colic-pangs, wasting diarrhœas, spasms of the abdominal muscles, vitiation of the digestant secretions, form some items of the long list of ills ranging under this class, and whereby the luckless underfed pauper is made "by inchmeal a disease."

Folios might be penned on this crying defect of the poor-law, and tax upon its medical officers; details, however, were here misplaced; suffice it humbly to venture the hint that, until a "Government sanatorial scheme" shall secure periodical inspection of the immense pauper population as to the laws which regulate healthy life, as food, cleanliness, drainage, number of persons or families per dwelling, &c., the poor-law medical officer, whatever his salary, can scarcely hope satisfactorily to fulfil his duties.

The toiling peasantry, the labouring poor, form the basis of the civil pyramid; without the base, where were the apicial elements? *Verbum sap.*

I must conclude by stating that, being poor-law surgeon to an agricultural district, to such these observations more directly refer.

Believe me, Sir, your very obedient servant,

JOHN COVENTRY, F.R.C.S.,
District Surgeon Dunmow Union.

To Hon. Sec. of Poor-law Med. Committee.
Hatfield Broad Oak, Essex, Nov. 30.

THE SUCCESSFUL CÆSARIAN SECTION.—SUBSEQUENT PREGNANCY AND DEATH.

[To the Editor of the Medical Times.]

DEAR SIR,—In the *Medical Times*, vol. ii., p. 45, 46, there appears a report of a successful Cæsarian operation, performed by my friend, and now my partner, Mr. Goodman—successful for the mother, who completely recovered, and for the child, which lived to the age of seven months, and then died of pneumonia. The case, in the annals of obstetric surgery in this country, is almost unique, another only, which occurred in Birmingham, being to be found.

Reading, a short time ago, the remarks of Dr. Adam Clarke, a celebrated biblical commentator, upon the introduction of evil into this world, I observed with interest, as a notion quite new to myself, that he has it that the word translated "serpent," in the history of the transaction in the garden, might be more properly rendered "ourang-outang." Moreover, he hypothesizes that the woman had intercourse with the animal "de functio maritii." Be that as it may, we are sure the philoprogenitive propensity reigns powerful in erring humanity. Under its influence Mr. Goodman's patient became again pregnant, and on Thursday last aborted a fœtus, apparently of two months'

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gestation. She died on Saturday, the 12th instant. Yesterday we had a *post-mortem*, in the presence of Mr. Goodman, myself, and our pupils, Day, Eckroyd, and Turton, the particulars of which shall be given to you shortly, as an appendix to the former record of the case. Meanwhile I am anxious to see the report of the meeting of the Provincial Medical Association, at which, I am given to understand, a learned obstetric physician of some polemic notoriety made some observations which, if made, amount to nothing less than an arrogant assumption to himself of that which in every sense belongs to another.

I am, yours truly,

A. W. Closs.

Grosvenor-street, Manchester, Dec. 14.

NOTE ON CHLOROFORM.

[To the Editor of the Medical Times.]

Sir,—I cannot omit to guard those who may be induced to employ chloroform in midwifery, owing to Dr. Rigby's recital of the twofold advantages he attributes to it, against a hasty supposition that it will be found to accelerate labour.

I have caused ether to be inhaled (which is in effect the same) in natural as well as in instrumental delivery, and I am fully persuaded that it retards rather than promotes the expulsion of the fœtus; and when it is considered how greatly the uterine power is assisted by the voluntary muscles, and that they are rendered inert by the use of chloroform or ether, it is impossible to draw any other conclusion.

There is no doubt that much resistance is offered by the soft parts to the expulsion of the fœtal head; but in first deliveries much more impediment is found in the pelvic bones and rigidity of joints, as evidenced in the labours of those advanced in years; and, as pressure alone is able to cause these parts to yield, I do not see that much advantage can be gained by any little relaxation that may be imparted to the soft parts; at all events, the loss of voluntary expulsive power will delay, much more than this alleged removal of resistance will expedite, delivery.

In the case reported by Dr. Rigby, there is some difficulty in understanding how the opinions of those persons present with himself could support him in believing that the labour would have been prolonged until the evening, instead of being terminated at noon, if chloroform had not been employed, unless they were all medical men, and all had examined the patient: for Dr. Rigby's experience in the fallacy of the prognostications of women and nurses regarding the duration of labour would not allow him to put faith in them, and the presence of more medical men than himself at the labour of a private patient seems improbable.

It is to be feared that the unguarded commendation of ether and chloroform in midwifery will be productive of some fatal results. All the advantages and none of the disadvantages are mentioned by writers upon them; but those who employ them without previous experience of their effects will not, let them be assured, find their exhibition so successful as they have been led to suppose.

In thus prognosticating untoward results I am certain they will happen only to those easily overcome by persuasion. Amongst the higher classes a general disgust for the uses of either of these agents is manifesting itself, and, although occasionally one from among them may be fascinated with their promised effects, yet great numbers have already expressed, not only their abhorrence of the system, but feelings towards those who recklessly adopt it, far from complimentary.

I am, Sir, yours very faithfully,

G. T Gream.

42, Nutford-street, Mayfair, Dec. 14.

A COUNTRY INQUEST.

[To the Editor of the Medical Times.]

Sir,—Should the enclosed summary of a coroner's inquest, holden on Monday last at Exford, a remote parish in the county of Somerset, be suited to your pages, I beg you will make whatever use you please of the facts therein contained, relying upon your unwearied exertions in behalf of our profession.

The inquisition was instituted in consequence of the registrar of the district not being satisfied, from the facts he was enabled to elicit, as to the cause of death of Jane Balmond, of whose registry a certificate was applied for. The deceased was an interesting-looking girl, nearly seventeen years of age, and was living as domestic servant in the house of the Rev. Thomas Bealy, where she died at two a.m. on Tuesday, the 7th inst., under circumstances which the following evidence (noted at the time by myself) will show:—

Mrs. Beadon, a daughter of the Rev. T. Bealy, was first called, and deposed that deceased enjoyed good health, with the exception of a slight cold, up to the night before she died; that she had performed her work as usual on that day (Monday). On entering the servants'-hall about six p.m., she observed deceased looked very ill, and told her she had better go to bed. She sent for Mr. Veysey, a druggist of the place. Deceased had spoken to Mr. Veysey the day before, and he had given her a little medicine for her cold; he called about five p.m. on Monday, and left other medicine, which was not taken. Witness's attention was aroused by the extreme pallor of deceased, and not by any complaint on her part, for she appeared totally unconscious at that time of her being ill. Mr. Veysey came that night in compliance with the summons, and gave deceased brandy and water, with a few drops in it.

Mrs. Williams, a friend of the family, who had called to see Miss Bealy, who was seriously ill at the time, stated that she was called by the last witness to the hall to look at the deceased; she asked her if she was suffering any pain, ; deceased said she was poorly in her head, and all in a shiver; she took some tea, after which Mrs. Beadon told her to go to bed, saying she had better not take her powder directly upon the tea, and, as it was to throw her into a perspiration, she need not get up very early in the morning. Deceased went to bed, and said nothing about having any discharge. Mrs. Beadon told witness, soon after, that deceased had brought away blood: she went to see her; deceased said her head was easier, and that she wanted to sleep; she complained of pain in her back and legs; witness asked her where the blood came from, and she said from the bowels; considers the quantity of blood lost must have been several quarts before she left the house, between eleven and twelve o'clock.

Jane Browning, a nurse in attendance upon Miss Bealy, said that Mr. Veysey had not been consulted by the deceased before Sunday, the 6th, when he gave her two powders. Her mistress had advised her to speak to Mr. Abraham, a surgeon, of Dunster, who was in attendance upon her sister, but deceased declined, saying she would rather have something from Mr. Veysey. Witness gave her one of the powders on Sunday night, and the other at four a.m. on Monday morning, according to Mr. Veysey's direction; the bowels were relaxed before daylight. A powder and draught were left by Mr. Veysey on Monday evening, but were not taken. I helped deceased into bed on Monday evening; she wanted to come out soon after to go to the pot; she said she was having the use of her bowels; after she had got into bed again I discovered the pot was half full of blood, about two quarts. Mr. Veysey came about ten o'clock, felt deceased's pulse, &c., but gave her nothing in my presence. I saw deceased repeatedly at short intervals; she continued to bring away blood both in and out of bed; several quarts must have been lost; the blood was very dark and had a very bad odour; I think there was a large clot in the first potful; there was no vomiting.

Jane Court, an occasional nurse, who had come to sit up on the Monday night with Miss Bealy, corroborated the last evidence, and added that she was present when deceased died, at two a.m. on Tuesday; she was perfectly sensible to the last; she complained of pains in her head, back, and bowels; cannot tell from which passage the blood came; deceased said it was from the bowels.

A juror suggested that Mr. Veysey should be sworn, in order to ascertain what he had given the deceased, when Mr. C. C. Collyns, surgeon, of Dulverton, stated that he should take measures for the prosecution of Mr. Veysey for having assumed the duties of a medical man in this case without any licence, and requested the coroner would preserve the foregoing depositions to be used as evidence against him. The coroner addressed Mr. Veysey, and gave him the option of being sworn or not; he complied, however, with the wishes of the jurors, and deposed as follows:—

Humphrey Veysey: I live at Exford, and am a druggist; I called on Sunday evening, the 5th inst., to inquire for my niece (Mr. Bealy and Mr. Veysey are brothers-in-law). Deceased said she was still very ill, and added, "I am very poorly myself, could you please to give me something?" I asked how long she had been ill, and what she complained of? She said, "Several days; I have pain in my head, and feel very sleepy; I also suffer from pain and numbness in my legs; the bowels have not moved since Friday morning." I said I had an opening powder in my pocket. I left two powders for her one to be taken that night in anything thick, and the other in tea or warm water early next morning. The night powder consisted of calomel gr. iij., and the morning of jalap. ℈j. I called about five p.m. on Monday to inquire for deceased and my niece; I left a powder to be taken that night consisting of pulv. ipecac. co. gr. xx (am aware that twenty grains of Dover's powder contain two grains of opium), and a draught for the following morning consisting of liq. ammon. acet. ℥ss., vin. ipecac. mln. xx., sy. papav. alb. ʒj, aquæ ad ℥jss.; the strength of syrup of poppies varies. I was sent for to see deceased about eight p.m., and received a second message about ten, when I went and found her in bed in a bad state from loss of blood; the nurse told me what had happened, and showed me the blood which had come away; the pot was nearly half full, and nurse said she had emptied one previously nearly full. Deceased answered, on my inquiry, that her head was easier, and she wanted to sleep. I gave her a tablespoonful of brandy in water, with twenty drops of laudanum; nineteen drops contain about one grain of opium. I was informed that the blood came from the bowels, but think and, in fact, feel sure that it came from both passages; did not make any examination in order to ascertain. I supposed a bloodvessel had given way; gave the opium to calm her to sleep, in hopes that by sleep the bleeding vessels would become closed, and the hemorrhage stopped. The brandy and water was merely a vehicle. An hour after, the bleeding still continuing, I gave her ten drops more laudanum in port wine and water; I remained with deceased until she died, and did nothing else for her. I did not suggest that a medical man should be sent for, as I did not think so badly of the case; I wished, however, in my own mind, that a doctor had been present.

Mr. Collyns, surgeon, of Dulverton, and registrar for the district, was now sworn, and stated his reasons for not giving the certificate for the burial of deceased; he said that he had been censured by the Registrar-General for having returned in his register-book no less than four entries within a short period in this parish, with the word "unknown" under the heading "Cause of death;" these cases had been attended by no medical man, and the cause of death could not be ascertained. He thought it his duty to send the particulars of this case, as far as he could learn, to the coroner, and leave it to him to decide whether an inquiry should be instituted or not; his letter was read to the jury. Witness had examined the corpse, and found it to present that deadly pallor characteristic of persons who had sunk from hermorrhage; he had no doubt that the deceased died from hermorrhage, but whence that hermorrhage had proceeded, or how it was induced, it was impossible for him to say, without making a *post-mortem* examination.

The coroner read parts of the evidence, and asked the jury whether, from it, they thought that the deceased came to her end by fair means. He considered a *post-mortem* unnecessary, as the exact seat of the hermorrhage was of no consequence, provided they were satisfied that hermorrhage was the cause of death. At his suggestion they found the following verdict, "Died by the visitation of God, probably from hermorrhage from the bowels."

There are important points for comment in this inquiry, but, as I have no time to dilate upon them, I shall leave them for your perspicuous pen. I should think the Apothecaries' Company must prosecute Mr. Veysey.

I am, Sir, yours, &c.,

Bampton, Dec. 15. John B. Collyns.

The Cholera Act.—In answer to a question whether the Government had any intention of adopting measures similar to those adopted in 1832, under what was commonly called "the Cholera Act," Lord Morpeth stated that the act of 1832, for the prevention, as far as might be possible, of the cholera in England, was still in force; and that act would enable the Government, on the least alarm of the cholera being imminent in this country, to issue proclamations and constitute boards of health. It was now under special consideration whether the proclamations issued on the former occasion could be advantageously altered or modified in any respect, in case that calamity should again visit us.

The cholera is on the decline at Constantinople.

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EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Sir Benjamin Collins Brodie, Bart., F.R.S., Examined.)

PROFESSIONAL TITLES.—I am a member of the council of the College of Surgeons. I have been a member of the college about forty years, and once president. I have been a member of the council about fifteen. I have taken an active part in instructing young men about to enter the surgical profession. In some way or another, from the time when I first became a member of the college, I have taken a part in the medical education of young men, and older men too.

IMPROVEMENT IN EDUCATION.—I think the science of surgery is much improved, and that the best-educated young men are better educated than they were then; I am not aware that there is much improvement in the education of the great mass of the students. The most accomplished of the year now are more accomplished than those who had made the greatest proficiency when I first began instructing. Perhaps I had better explain what I mean rather more at length. With respect to the qualifications of the great mass of the young men in the medical profession, the constituted authorities require of them more knowledge than formerly; but they are in the habit, before the examination, at the Apothecaries' Hall especially, to resort to persons to cram them, with a view to enable them to pass their examinations; in this manner a great deal of time is wasted, and, therefore, I very much doubt whether the great mass of the medical students are, in consequence, really better educated than they were when I was young myself.

CRAMMING FOR EXAMINATIONS.—The system of cramming for examinations is not confined to the Apothecaries' Hall, but to a certain extent it has extended to the examinations of the College of Surgeons. I suppose there can be no examination of any kind instituted anywhere, for which a certain number of young men will not be crammed; but it is so general as to the preparation for examination at Apothecaries' Hall, that a well-informed young man scarcely ventures to go up there to get a licence without having been first crammed. Cramming merely teaches words, a sort of *memoria technica* being used for that purpose. But if actual dissection upon the dead body be the test, cramming is not available for such instruction.

EXAMINATIONS AT THE COLLEGE.—The examination before the College of Surgeons, since I first became a member, has been improved, and has been rendered more really a test of attainment. I think, when I ceased to be examiner two years or a year and a half ago, the examination was very much better than it was at the time I first became an examiner in the year 1834. I was first an examiner in the year 1834; and I continued to be an examiner till about a year and a half ago. I was an examiner in virtue of my office as sergeant-surgeon, and by the Queen's permission I resigned the office about a year and a half ago.

THE NEW CHARTER OF THE COLLEGE.—The new charter was granted to the College of Surgeons I believe in 1843 or in 1844. I think that the new charter is a very great improvement on the old charter; that it is more liberal in its spirit, and tends to the establishment of a superior order of practitioners. At the same time, I think that the new charter has not yet produced all the good that it is calculated to produce, because the system of election of the council by the fellows hitherto exists only in a very partial degree, in consequence of the original members of the council who existed at the time of the charter being allowed to retain their office for life. The governing body of the council under the old charter were self-elected; prospectively it will no longer be so.

COLLEGE EXAMINERS.—The examiners were for life under the old charter, and I doubt very much whether the council had the power of getting rid of them; at any rate the power was never exercised. When they became old, and their skill had diminished, or from any other cause, it became desirable to remove them; but I do not believe that there was any power of removal; if there was, the council never ventured to exercise it. An examiner appointed under the new charter is appointed by the whole body of fellows; none, however, have yet been elected to the council except the members of the council. There is a power to appoint examiners from the whole body of fellows, consisting of 600; and the tenure of the office of examiner is, under the new charter, during the pleasure of the council.

EXAMINATION FOR THE FELLOWSHIP.—Under the new charter there is a higher and more difficult examination; but the still more important matter is this, that they are required to produce testimonials of previous general education, and they are required to spend five or six years in professional study in hospitals and schools. There is a limit in point of age: it is twenty-five instead of twenty-one. No young man can stand for a fellowship till he is twenty-five years of age. Actual dissection in the presence of the examiners forms part of the examination for the fellowship. In the examination of members we used to refer to preparations, the skeleton especially. Actual dissection did not form part of the examination of a member when I was examiner, and I believe it does not now. I approve very much of actual dissection as a real test of knowledge and of sounder acquirements; but I am afraid it would be difficult under existing circumstances to make it general for the members, on account of the difficulty of procuring subjects; but for fellowships it is the invariable test; there is no difficulty there, and I would wish it to remain a portion of the examination for the fellowship.

EXAMINATION FOR MEMBERS.—The examination for membership, as contradistinguished from that for the fellowship, has been more strict and more searching of late years than it was when I was first examiner. I think very much more so. Taking the two examinations as they now exist together, the examination for fellowship and the examination for membership, I would say that the standard of surgical knowledge and acquirements, as fixed by the College of Surgeons, has been elevated — elevated considerably. I think the examination is as good as examinations can be, all such human institutions being liable to imperfections: at the same time I am of opinion that no examination is a perfect test either of knowledge or talent. I do not think the examinations of the college can admit of much improvement, unless we could introduce an examination by dissection for the members, which would indeed be a great improvement; but which, as I said before, I fear is impracticable, from the difficulty of obtaining subjects.

BENEFITS OF THE NEW CHARTER.—The experience, though short, of the operation of the new charter, as exciting emulation among young surgeons for the fellowship, proves that it does great good among the higher class of young men. In many cases I have seen emulation among the young men to acquire fame by undergoing superior examination for the fellowship. I have attended several of the examinations for fellowships. There were four or five examinations before I resigned the examinership. I think the examinations have been very strict, and the requirements very considerable, but, notwithstanding that, many young men have passed them with the greatest credit. I have reason to know that a great many young men are now training and studying with a view of standing out for the fellowship, and even young men who are already engaged in practice; for the charter allows any member, though he has not had an extended term of education in the first instance, to present himself, after so many years of practice, for examination for the fellowship. Indeed I think the College of Surgeons is so constituted as to do great good to the public, and to advance the science of surgery.

MEDICAL BILLS.—My attention from time to time has been directed to the several legislative measures which have been introduced, though not passed, for the purpose of improving the law with respect to the practice of medicine and surgery in England. My attention has been called to a bill which is now under the consideration of the House of Commons; I have read it. The College of Surgeons has petitioned against that bill. I know the substance of that petition generally; I do not recollect that I have actually seen it; I was not present when it was read to the council. The are many objections in that petition set forth against that bill, and it is alleged that the tendency of that bill indirectly, if not directly, is to introduce a single faculty. It appeared to me to be so when I read that bill; the meaning is rather obscure in some places; but it certainly appeared to me that the tendency was to confound all grades of the profession together.

OBJECTS OF MEDICAL LEGISLATION.—An amalgamation of the whole profession into one mass, in my opinion, is not at all desirable. It appears to me that there are two objects to be kept in view in medical legislation: first, to supply the public with a sufficient number of well-informed practitioners for ordinary purposes; and secondly, to induce a certain number of persons of a superior education to enter the profession who are not compelled to look for a livelihood in very early life, and who will have time to study the profession as a science, and to promote the advancement of it as a science; and I do not think that the single-faculty system would operate well in the latter way. The first object it is possible that a single faculty might attain, or even promote. In my opinion, if that object were attained, and even if the standard generally of medical practitioners throughout the kingdom should be in some slight degree elevated by the introduction of a single faculty, I think the evil would more than counterbalance the good. But, in fact, the two things are quite compatible; you may very well attain at the same time the two objects of supplying the public with good practitioners for ordinary purposes, and those who will pursue the profession as a science.

A SINGLE FACULTY.—If my view be correct that since 1834 the examinations, both for membership and for fellowship at the College of Surgeons, have been progressively higher under the existing institution, that conjoint object, which I think so desirable, is secured to the public if you leave the college undisturbed. Allow me to say, in explanation, if you had a single faculty of very high attainments, as far as science is concerned, that single faculty might do very well, but that would not do for the public, and the result would be that it would force uneducated persons into practice. This was the mischief that occurred in former times, when the physicians assumed to be the only medical practitioners, and required of their body very high qualifications; persons who were to practise among the poor could not go to the expense of obtaining those qualifications, and that forced the apothecaries, who were then chemists, into practice; and if you were to bring up the whole of the profession to the highest standard, the inevitable result would be the forcing of chemists and druggists into practice, just in the same way as the chemists, who were then called apothecaries, were forced into practice formerly, and I apprehend that no legislation could prevent it. The effect of raising the general standard beyond a certain point would be to encourage empiricism and ignorance. Throughout England generally, and more especially in the rural districts, the poverty of the body of the people prevents the payment of more than a very small modicum of reward for medical skill. I think that for the mass of the profession the requirements as to education have been carried already to the highest standard—quite as high as the rewards of even successful practice can compensate in consideration of the time occupied and expense incurred in acquiring knowledge and skill. Therefore, in my opinion, even if the

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introduction of a single faculty had the effect of raising the profession generally above that which is at present the lowest point, you would sacrifice the advantage of attaining that higher class of practitioners which at present exists.

Apothecary Apprenticeship.—And I think that there would be a danger of forcing upon the people more ignorant practitioners than now generally practise in medicine throughout the country. There is one matter, however, in which the whole body of practitioners might be very safely improved without any additional labour, or without any additional expense in their education, and I see that that is provided for in the bill you alluded to just now; namely, by getting rid of the apothecaries' apprenticeship. The apothecaries' apprenticeship is a very great evil, preventing the greater part of the young men educated as general practitioners having anything like a literary education. That part of the act of 1815, commonly called the Apothecaries' Act, I would desire to see repealed; and if a good deal more were repealed, it would be a good thing.

Age for Commencing Practice.—To postpone the commencement of practice on the part of surgeons to as late an age as is consistent with the natural wish of young men to realize some profit from their studies, would be unsafe I think for the great mass of practitioners; it would make the education more expensive, and in that way prevent the public being sufficiently supplied; but I think, that for those who aspire to be hospital physicians and hospital surgeons, it is very desirable that the period of examination and of beginning practice should be postponed; and that is the effect of the new charter of the College of Surgeons. I approve of the period fixed for the fellowship, the age of twenty-five, and in fact, I imagine that very few young men who wish to be in the higher walks of surgery in London ever begin practice sooner than that. Not many surgeons have been members of English universities. Considering the peculiar duties of surgeons with reference to the feelings of young practitioners, it is desirable that they should begin hospital practice at rather an early age, but not at such a period as to prevent a good general education. It would be more difficult to combine such early attendance upon the hospitals with a university education, than in the case of physicians.

Education.—There is a little difference in the case of surgeons and physicians, with respect to education: the surgeon requires more anatomical study, and I find that young men who do not begin to study anatomy till they are three or four and twenty, for the most part, hardly study it at all; and I think in operative surgery there is something to be overcome which is better overcome at twenty than at twenty-three. Though there are difficulties, even among those who aspire to honours in the profession of surgery, in encouraging university education, we have, by the examination, as now fixed by the College of Surgeons, secured some test of literary attainment as well as professional attainment. When the new by-laws were made as to the examination of fellows, we required, for the first five years, that they should bring testimonials of a good general education; and we allow those who have a degree at an English university to come up upon five years' professional study, instead of six, which we require of others, that being correspondent with the rule which is observed at the inns of court with respect to barristers; but after the pear 1850, that is after the first five years, they will be required to bring up some more actual proof of a good general education than they are required to bring at present: I forget exactly what the terms are. I think that after the year 1850 the college contemplates having a board for the purpose of general examination in mathematics as well as literature, and a certain knowledge of the dead languages. I understand that this is the regulation as stated by Mr. Lawrence: that the candidaces are to produce a degree of master of arts from the university, or evidence of education equivalent to that which would be required for that degree.

(To be continued.)

Mortality in Edinburgh.—The bill of mortality of the Royal Infirmary for some time past exhibits a melancholy detail of the dreadful havoc which the calamity at present prevailing is making amongst its inmates. In the month of July the number of deaths was 138; in August, 104; in September, 105; in October, 129; and in November just expired, 170. In October last year there were only 54 deaths, and in November, 55. During the few days that had elapsed in December on Friday last, they had increased to the unprecedented number of 75, being about 11 daily.—*Caledonian Mercury.*

The Senate of Heidelberg has recently conferred the honorary degree of LL.D. upon our correspondent, Dr. Wright, of Birmingham, "in consideration of his contributions to the science of medicine, and more especially for his treatise 'On the Physiology and Pathology of Saliva, and on the Pathology of Expectoration, as applied to the Diagnosis and Treatment of Diseases of the Lungs.'"

MORTALITY IN THE METROPOLIS.

From the Registrar-General's return for the metropolitan districts it appears that the excessive rate of mortality which was announced in the previous report continued to prevail in the week ending Saturday last. The number of deaths is 2,416, showing an increase above the average of the season equal to 1,370, or 130 per cent.; whilst, compared with the greater number of the preceding week, it gives a difference of only 38. The following are the principal causes of mortality in three weeks:—

	Weeks ending			Weekly Average.
	Nov. 27.	Dec. 4.	Dec. 11.	
Zymotic diseases..	415	638	783	211
Diseases of respiratory organs ..	634	994	913	333
Typhus, &c.	91	136	140	38
Influenza.....	36	198	374	3
Pneumonia and Bronchitis	366	649	593	148
All causes	1,677	2,464	2,416	1,046

The decrease of mortality in the previous week, though numerically insignificant, encourages a belief that the force of the epidemic has attained its maximum, and, being checked by some improvement in the state of the atmosphere, is already on the decline. Probably influenza has done its worst for the present; certainly it has done more than enough to renew in the minds of the existing population the "acquaintance" which it established with our ancestors some centuries ago. From the above statement it will be observed that, while the total mortality is less, the deaths specially ascribed to influenza show a considerable increase on the former week. This circumstance it is difficult to explain, except on the supposition that, at first, medical men perceived in a multitude of cases only the aggravation of a chronic complaint, or the inflammatory symptoms of a common cold, till wide-spread disaster compelled them to recognise the presence of a new agent, and to assign the appropriate name.

Subjoined to the return are the following exceedingly important meteorological observations:

The most remarkable meteorological phenomenon of this year is the low reading of the barometer on the morning of Tuesday, December 7, which, as stated in the general remarks, was 28.381 in.; this reading is lower than any since that in the memorable storm of January 13, 1843, which was 28.096 in.; the lowest reading in the year 1844 was 28.525 in.; in 1845 was 28.659 in.; and in 1846 was 28.536 in. In 1847, December 1, the reading was high; and at midnight it was 30.237 in.; immediately after this time the reading began to decrease, and continued decreasing till the morning of the 5th day, at which time it was 29.206 in.; it having been at 30.074 in. at midnight on the 2d; at 29.885 in. at midnight on the 3d; and at 29.276 in. at midnight on the 4th. During the 5th day the reading increased a little till the evening, when it again began to decrease, and at 4h. 20m. A.M. on the morning of the 6th it decreased below 29 in., and continued to decrease throughout the day, and at midnight it was 28.291. On December 7th, at 2h. 35m. A.M., the minimum reading 28.381 in. took place, and it remained at this reading till 2h. 50m. A.M.; after this time the reading began to increase. This reading is 1.855 in. less than it was 5 days 1 hour previously. This change of reading is great; but in January, 1843, between the 13th, at 0h. 53m. P.M., and the 19th, at 9h. 20m. P.M., the reading increased from 28.096 in. to 30.437 in., or 2.341 in. in 5 days and 21 hours. (See the Greenwich Observations for 1843, page 266.)

In 1847, December 7, at 9h. P.M., the reading had increased to 29 in., and it continued to increase till the 8th, at 7h. P.M., at which time it was 29.634 in. It then began to decrease, and to the end of the week it has alternately increased and decreased about the mean reading as shown in the table.

On December 1st there were unusual changes of temperature of the air; the temperature during the preceding night was high, and generally above 50°; towards sunrise, on the sky becoming free from cloud, it began to decline, and continued doing so till very nearly noon, at which time it was 40°; at 1h. P.M. it had increased to 50°, and continued at nearly this point till after 4h. P.M.; it then began to decline, and at midnight it was as low as 38°, and after midnight it declined to 31°. On Tuesday the sky became cloudy, and the temperature increased from 40° at 7h. A.M. to 56° at midnight; it did not decline below 55° during the night. On the 3d the sky was clouded throughout the day, the temperature was high and nearly uniform, till after 8h. P.M., between which time and midnight it declined from 53° to 41°. On the 4th the temperature of the air increased till 1h. P.M., at which time it was 50°, and it continued very nearly at this point throughout the remainder of the day; after midnight it declined to 24°5. The highest point reached on the 5th was 47°, and this decreased to 37° by 11h. P.M.; after this time the temperature increased rapidly at night, and at 7h. A.M. on the 6th was 53°; and from this time it slowly declined during the day, and at midnight was 41°. The 7th day was cold, and there was but little change of temperature during the day. On the morning of the 8th the temperature was 32°, which increased to 41°5 by 1h. P.M., and decreased to 31°3 by 7h. P.M.; at 8h. P.M. it had increased a little; at 9h. P.M. it was 36°, and from this time it increased all the night, and at 1h. P.M. on the 9th it was 56°5, being 25°2 higher than it was 18h. previously. The period of time between the 9th, at 2h. P.M., and the 11th, at 2h. P.M., was remarkable both for the high temperature and its uniformity, the extremes between those times being 50° and 54°. After 1h. P.M. on the 11th the temperature declined from 51° to 38° by midnight.

From the preceding remarks it will be seen that the usual uniform rise and fall of temperature during the day has frequently been reversed. The reading of the barometer was high on the 1st and 2d, during the 3d it decreased about a quarter of an inch, and on the 4th it further decreased half an inch; on the 5th it was low all day, and on the 6th it was remarkably low, and it has continued rather low till the end of the 11th day.

The following shows the comparative meteorology for the first eleven days in December, since the year 1841:—

Period from Dec. 1 to Dec. 11, both days inclusive.	Years.					
	1842	1843	1844	1845	1846	1847
	deg.	deg.	deg.	deg.	deg.	deg.
Mean temperature of the air	42.3	44.7	30.7	42.1	31.8	47.3
Mean temperature of the dew point	41.2	42.7	28.6	37.8	31.6	43.7
	gr.	gr.	gr.	gr.	gr.	gr.
Mean amount of water in a cubic foot of air	3.3	3.4	2.0	2.9	2.3	3.5

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Period from Dec. 1 to Dec. 11, both days inclusive.	Excess in the year 1847 above that in the years					Mean excess.
	1842	1843	1844	1845	1846	
	deg.	deg.	deg.	deg.	deg.	deg.
Mean temperature of the air.....	5.0	2.6	16.6	5.2	12.5	8.4
Mean temperature of the dew point	2.5	1.0	17.1	5.9	12.1	7.5
Mean amount of water in a cubic foot of air	gr. 0.3	gr. 0.1	gr. 1.5	gr. 0.6	gr. 1.9	gr. 0.7

UNIVERSITY OF LONDON.

M.B. SECOND EXAMINATION.—1847. PASS EXAMINATION.

PHYSIOLOGY.

Examiner, Dr. Carpenter.

1. What are the principal components of the blood in vertebrated animals, their respective characters, properties, and uses in the economy, their chief diversities in the several classes of this sub-kingdom, and their proportions in the healthy human system?

2. State the essential nature of the respiratory process; the purpose which it answers in the economy; the causes which ordinarily render its continuance essential to life; the circumstances under which it may be temporarily suspended without injury to the system; and the changes which it normally produces in the blood and in the air respectively.

3. Describe the apparatus provided for the aëration of the blood in the following classes of animals;—echinodermata, bivalve mollusca, insects, fishes, reptiles, birds, and mammalia; and give an account of its operation in each case.

4. Describe the structure and actions of a gland, according to modern views; trace the gradual development of the liver through the principal series of invertebrated animals; describe the chief varieties presented by the structure of the kidney in the different classes of vertebrata; and give an account of the chief components of the urinary secretion, and of their respective sources.

5. Give an account of the structure of the nervous system in the centipede; compare its parts with those of vertebrata; describe its actions; and point out the bearing of the whole on the doctrines of reflex action.

6. Describe the general structure of the encephalon in each of the four classes of vertebrata; and state the physiological inferences which may be deduced from the comparison of these different types.

7. Upon what chemical process is the maintenance of animal heat chiefly dependent; how is this maintained in the bodies of man and of carnivorous and herbivorous animals respectively; and what are its relations to the presence of fat in the animal body?

8. Describe the apparatus by which the embryo obtains its nourishment from the contents of the ovum in the oviparous vertebrata; the provisions for the aëration of its blood; and the manner in which these are combined in the placenta of mammalia.

GENERAL PATHOLOGY, GENERAL THERAPEUTICS, AND HYGIENE.

CELSUS DE RE MEDICA.

Examiners, Dr. Billing and Dr. Tweedie.

1. Explain what is meant by transformation of tissues, and under what circumstances it may take place. Give a few examples in illustration.

2. Describe the physiological effects of cold on the living body. State the various purposes for which it is used as a therapeutic agent. Mention the forms in which it is employed in the treatment of diseases, with the special rules for its administration.

3. Describe the injurious effects that result from neglect of proper exercise. Sketch the different kinds of exercise—1, as a hygienic, and 2, as a curative, agent, with the special rules of application.

4. Translate the following passage into English:—

Faucibus subest stomachus; in quo plura longa vitia incidere consuerunt. Nam modò ingens calor, modò inflatio hunc, modò inflammatio, modò exulceratio afficit: interdùm pituita, interdùm bilis oritur; frequentissimumque ejus malum est, quo resolvitur: neque ullâ re magis aut afficitur, aut corpus afficit. Diversa autem ut vitia ejus, sic etiam remedia sunt. Ubi exæstuat, aceto cum rosâ extrinsecùs subindè fovendus est, imponendusque pulvis cum oleo, ete a cataplasmata quæ simul et reprimunt et emolliunt. Potui, nisi quid obstat, gelida aqua præstanda. Si inflatio est, prosunt admotæ cucurbitulæ; neque incidere cutem necesse est: prosunt sicca et calida fomenta, sed non vehementissima. Interponenda abstinentia est: utilis in jejuno potio est absinthii aut hyssopi aut rutæ. Exercitatio primò lenis, deindè major adhibenda est; maximèque quæ superiores partes moveat: quod genus in omnibus stomachi vitiis aptissimum est. Post exercitationem opus est unctione, frictione; balneo quoque nonnunquàm, sed rariùs; interdùm alvi ductione; cibis deindè calidis, neque inflantibus; eodemque modo calidis potionibus, primò aquæ pòst, ubi resedit inflatio, vini austeri.

SURGERY.

Examiners, Sir Stephen Hammick and Mr. Cæsar Hawkins.

1. What is Delirium Tremens Traumaticum? Under what circumstances is it most likely to occur? Describe the symptoms, and how they are to be distinguished from those of inflammation of the brain; and mention the proper treatment, under the mildest and most aggravated forms.

2. Describe the various dislocations of the femur at the hip-joint; and the signs of the injury, according to the several positions of the displaced bone; distinguishing between each form of dislocation and other accidents for which it may be mistaken; give the method of reduction in each case respectively, mentioning the general as well as the local measures necessary.

3. Describe the symptoms, causes, and treatment, both local and general, of different cases of senile gangrene of the toes or leg, according to the depth and extent, and to the acute or chronic nature of each case; or the age, habits, and state of the constitution of each individual.

MEDICINE.

Examiners, Dr. Billing and Dr. Tweedie.

1. Describe the anatomical characters of inflammation of the digestive mucous membrane.

2. Enumerate the causes under the influence of which hæmatemesis may arise. Explain the sources of the hemorrhage, and the principles of treatment.

3. Describe the intra-cranial lesions which give rise to paralysis.

4. Explain how serous effusion takes place in cardiac dropsy. What lesion of the heart most frequently induces it?

5. Give a definition of purpura. Describe its varieties, and the treatment applicable to each.

6. Sketch the diseases to which the windpipe (including the larynx) is liable, with an outline of their treatment.

MIDWIFERY.

Examiner, Dr. Rigby.

1. Describe the various sympathetic affections produced by pregnancy, their nature, and treatment.

2. Describe the causes of faulty uterine action, and the treatment.

3. Describe the symptoms, causes, and treatment of after-pains.

FORENSIC MEDICINE.

Examiners, Professor Brande, Dr. Pereira, and Dr. Rigby.

1. Bisulphuret of ammonium has been proposed as a test for hydrocyanic acid. Describe the mode of using it, its effects, and the nature of the chemical changes which ensue.

2. The earth of a grave in which a body has been interred is stated to contain arsenious acid, either free or in some combination. How would you proceed to determine these points?

3. In the case of a person poisoned by belladonna, how would you proceed to ascertain the presence of the active principle of this poison in the urine?

4. Describe the symptoms and treatment of poisoning by white lead.

5. Where a knot upon the cord is assigned as the cause of the child's death, how would you determine whether it had been formed before birth or wilfully tied afterwards?

6. State what you know of uterine auscultation in pregnancy.

GOSSIP OF THE WEEK.

A legacy of £25,000 has been left to the medical department of University College, London, by the late Dr. Holme, of Manchester. The *Manchester Guardian* of this week, speaking of the will of the deceased physician, says:—"The personalty is stated to be under £35,000. If to this amount we add the value of the realty—viz., the property in King-street, Manchester, which is probably worth £12,000; that at and near Kendal, £250 a year, at twenty years' purchase, gives £5000; his library will be worth little short of £6000; and an examination amongst his papers shows that he, too, like the late Rev. S. Smith, was a holder of Pennsylvanian bonds, to the extent, probably, of £1000; also of Columbian bonds, to the amount of 25,000 dols. (nearly £5000), and of other American bonds; but taking the whole of these bonds to be worth only £2000, that would give an aggregate amount of property, real and personal at the time of his decease, of about, in round numbers, £60,000. The aggregate amount of the legacies and bequests in money is £15,800; and deducting this from £35,000, and adding £6000 for the library, it would appear to leave a residue of about £25,000 for the medical department of University College.

Ten thousand persons are said to be laid up with the influenza at Lille, but no case has terminated fatally. At Toulouse there are, it is said, fifteen thousand persons in a population of fifty-five thousand suffering from that malady.

THE INFLUENZA.—For some weeks past this epidemy has prevailed more extensively than on any former occasion. The provincial newspapers report its presence in many localities, especially in the north. Letters from Edinburgh state that it is ravaging the east coast of Scotland, from Aberdeen to Arbroath and Dundee, and has also commenced in Edinburgh. In London and its neighbourhood it extensively prevails. Several hundred boys in St. Paul's and Christchurch Schools are on the sick list, and the Merchant Tailors' School has been prematurely closed for the Christmas holidays, in consequence of the illness of a large proportion of the pupils. The business of some of the public offices has also been impeded from the clerks being affected with the disorder, and in the Post-office alone 140 clerks were reported to be absent last week. In manufactories and wholesale houses much inconvenience has been felt from the same cause, and the deaths in Greenwich Hospital during the last fortnight have been at the rate of 20 per diem, out of a total of about 2,000 pensioners. It has proved everywhere extensively fatal, and the deaths in London last week were 60 per cent. above the average of the last five years. The disease appears to be equally prevalent and fatal on the Continent. Letters from Marseilles state that, out of a population of 160,000 souls, half at least are confined to bed by the influenza, which broke out in the town a fortnight since. Within the last few days, however, it has lost much of its intensity at Marseilles, but it is raging with violence at Perpignan, Montpellier, and Nismes. At Toulouse, by the last accounts, no less than 15,000 persons are labouring under the distemper. It is also very prevalent in Paris, where it has recalled the recollection of similar events before the arrival of the cholera in 1832.

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THE MIDDLESEX HOSPITAL.— On Monday a special general court of the governors of this charity was held in the board-room, Charles-street, Tottenham-court-road, to take into consideration the case of Mr. E. W. Tuson, one of the surgeons of the institution. Mr. B. B. Cabbell presided. There were also present—the Duke of Cambridge, Sir R. Inglis, M.P., Sir W. Stirling, Sir B. Smith, Sir E. Pearson, General Caulfield, Mr. B. Hawes, the Hon. Captain Maude, R.N., Captain Darley, the Hon. J. W. Percy, Mr. W. F. A. Delane, and nearly one hundred governors. The business of the day having been opened by the chairman, Mr. Sheddon, the secretary, read the statement of the weekly board of the circumstances the meeting were called upon to investigate, in which were set forth cases of complaint against Mr. Tuson for having received money for defraying the expenses of pupils, and for not having therewith paid the fees for the lectures in the hospital, whereby the pupils had been obliged to pay the money out of their own pockets a second time, and statements by Mr. Rowden and Mr. Corfe, co-lecturers with Mr. Tuson, complaining that he had not duly accounted to them for various fees. The statement having been read, the Hon. Captain Maude addressed the meeting, and moved "that the meeting confirm the resolution of the weekly board of the 30th of November, by which Mr. Tuson was suspended." Mr. C. Elliott seconded the resolution. Mr. Propert moved an amendment to the effect that, although Mr. Tuson had in his transactions with his private pupils been guilty of conduct in the highest degree censurable, yet as his duties during the years he had been attached to the hospital had been characterized by skill, assiduity, and great zeal, the meeting did not deem it expedient to force his resignation. Mr. Brewster seconded the amendment, after which several gentlemen addressed the meeting, and several questions were put to Mr. Tuson. The debate resulted in a resolution, put by Mr. Hawes, which was as follows:—"We, the undersigned, feel strongly the importance of waving every individual feeling for the security of the hospital, and we deem it right to disclaim further contention, and to place our resignation in the hands of the weekly board at the next meeting." This resolution, which was signed by all the surgeons of the establishment, was seconded, and carried by the meeting. The officers will offer themselves for re-election, and it will then be for the governors to say whether they will re-elect Mr. Tuson. His Royal Highness the Duke of Cambridge having said a few words expressive of the interest he felt for the good of the hospital, and a vote of thanks having been passed to the chairman, the meeting broke up.

WAR-OFFICE, Dec. 10.—20th Foot: Assist.-Surg. John Gillespie Wood, M.D., from the Staff, to be Surg., vice James Morison, who retires upon half-pay; Henry Higgins Jones, M.D., to be Assist.-Surg., vice Smith, appointed to the Staff.—Hospital-Staff: Assist.-Surg. G. Roche Smith, from the 99th Foot, to be Assist.-Surg. to the Forces, vice Wood, promoted in the 20th Foot.

NAVAL APPOINTMENTS.—Surgeons: Thomas H. Keown, to be Superintendent of the Mountstewart Elphinstone convict-ship; D. G. Miller, to the Blenheim; T. M. Jewell, to the Victory; J. W. Bowler, Superintendent to the John Calvin convict-ship; H. Morris, Superintendent to the Bangalore convict-ship; W. F. Carter, to the Inconstant; W. H. Brent, to the Pantaloon, vice Dr. Graham, deceased.—Assistant-surgeons: J. Simpson (b), to the Plover; W. Smith, M.D., to the Meander; H. W. Horsell, the Bonetta; W. M. Ogilvie, to the Inconstant.

OBITUARY.—On the 5th inst., Philip Elliot, Esq., M.D., late of Neath, Glamorganshire, aged 80.—On the 9th inst, at his residence, 9, Marlborough-place, Walworth-road, Richard Prior, Esq., surgeon, aged 48, of influenza.—On the 14th inst., at his residence, Hampstead, John Ranicar Park, Esq., M.D., aged 69.—Nov. 18, at Dundee, from fever,— Carruthers, Esq., M.D.—Nov. 20, aged 32, from fever, H. Ballen, Esq., medical officer to the Aldgate District of the East London Union.—On the 2nd inst., at Wellington, Somerset, Wm. Callard Pyne, Esq., surgeon, aged 56.—On the 6th inst., at Camden-town, Dr. Wigan, author of the work "On the Quality of Mind."—Lately, of influenza, M. Delmas, professor of midwifery in the University of Montpelier.

MORTALITY TABLE.

For the Week ending Saturday, Dec. 11, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	2416	1046
SPECIFIED CAUSES...	2414	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases	783	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	160	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	177	157
Diseases of the Lungs, and of the other Organs of Respiration	913	333
Diseases of the Heart and Blood-vessels.....	50	34
Diseases of the Stomach, Liver, and other organs of Digestion	114	74
Diseases of the Kidneys, &c.	17	9
Childbirth, Diseases of the Uterus, &c.	20	14
Rheumatism, Diseases of the Bones, Joints, &c. ...	11	7
Diseases of the Skin, Cellular Tissue, &c.	—	2
Old Age.....	134	65
Violence, Privation, Cold, and Intemperance.....	35	29

TO CORRESPONDENTS.

THE "MEDICAL TIMES" may be procured by an order on any Newsman or Bookseller, or it will be sent direct by post from the Office of the "Medical Times" to Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Pound Five Shillings IN ADVANCE, which will free them for Twelve Months. Half-yearly Subscription, 15s.; Quarterly, 7s. 6d.

"An Enemy to Quacks."—The handbill forwarded is an old puff of the "Silent Friend" company. The parties are a disgrace to the profession, and it is a pity the College of Surgeons has not the means of advancing the interests of the profession by expunging their names from the members' lists. The quacks have appeared so long in print that they are beyond shame.

"Scarificator" cuts deeply, but not scientifically. The matter is unsuited to our pages.

"A Three Years' Student at Bartholomew's" writes us that he is about to go up to the College for examination, and wishes to be informed what persons we would recommend to prepare him for the ordeal. If our correspondent refers to grinders we cannot recommend, as we never employed one. As to the "ordeal," our correspondent may rest assured that it is not a "fiery" one, but, with an amount of knowledge which an ordinary mind can obtain by common application, there is no danger of not obtaining the diploma.

"A Licentiate."—The Company is placed in a very critical position with regard to the prosecution of individuals practising as apothecaries without the licence. In consequence of its being understood that the society will institute no prosecution where a party is in possession of a medical qualification, numbers dispense with the certificate. They are in danger, however, from private informers, and it is probable that the society would aid in a case where they would not appear as prosecutors.

"Senex, Edinburgh."—If the correspondence is forwarded to us we shall be better able to judge whether the facts are suitable for publication; and, if so, whether prudence would dictate such a procedure. If the letters are sent to our office they shall receive immediate attention.

"A former Student of King's College."—Mr. Fergusson's portrait, which is an excellent likeness, was published by Mr. Stone, of the College of Surgeons.

"Mr. S. Benson."—We know nothing of the fracture apparatus to which reference is made; the parties have no standing in the professional world.

"F. F., M.D., Dublin."—We are glad to hear of the estimation in which Mr. Corfe's papers "On Semeiotics" are held. Our correspondent passes a eulogium on them by saying that they are not only interesting for the unaffected simplicity of style, but also for the valuable information they give in reference to the treatment of certain diseases.

"Surgeon-Dentist, Bristol."—The paper on the administration of Chloroform vapour we cannot promise to insert at present. It remains, therefore, at our office, according to request.

"Chirurgus, Manchester."—Mr. Lawrence's evidence was brought to a close in our last number.

"A Medical Student, Borough."—The Faculty of Physicians and Surgeons of Glasgow does not stand high as a licensing professional body. There are other corporations, however, of as easy virtue as the Glasgow faculty.

"Mr. Chas. Braddon, Upton-on-Severn."—The communication has been received; but, from press of matter, we have been unable to publish it; we hope to find room for it next week.

"Mr. J. Jones, Llanfair, Montgomery."—The article is used just in the same way as the ordinary sulphate, dissolved in water, with the addition of the necessary quantity of dilute acid.

"Philo-chlor."—The communication is unsuited for our pages.

The communication respecting the German Hospital at Dalston shall appear next week.

"An Ill-paid Medical Assistant," who writes us that he receives £30 per annum as his salary, for which he is obliged to dispense medicine, visit the poorer patients, and attend midwifery cases, wishes to be informed if a means can be adopted to benefit his useful but badly-paid class. We condole with our correspondent on his unfortunate condition. The labour is great, and the pay small. We cannot suggest a remedy. Perhaps, as "Assistant" suggests, a public meeting might be useful,

"W. P. D., County Down," in a letter to us, observes, "Medical reform must eventually take place, the profession 'with the aid of the press' having become alive to the injustice done them both in England and Ireland by the paltry remuneration granted for any medical situation under Government. Instance the pay for medical and surgical attendance, together with medicine, on the constabulary, sixpence per month per man. The appointment as medical officer to a party of police was offered me a short time back, which I declined, being actually a loser when holding a similar appointment in another county. The Government ought to be ashamed for offering, as also the physician for accepting, the miserable pittance. By inserting the above in your *Medical Times*, truly the best medical journal extant, you will oblige

"Your humble servant,

"County Down, Dec. 1." "W. P. D.

"Limericensis."—We objected to the insertion of the last letter in consequence of its not being authenticated. As that difficulty is now removed by our correspondent's name being forwarded, we will insert the principal points in the present communication. "Their assistant, who is the subject of our dispute, is a young man who spent some time, previous to his coming to Surgeons T. and J., with one Surgeon R., of Rotherham, who keeps a druggist's establishment, and who is, which is shameful to say, most liberal in initiating illiterate beings into the mysteries of the medical profession, one of which is at this moment carrying on a medical and surgical practice in a village in opposition to Mr. R., and is doing remarkably well; although, not having the slightest pretensions to a certificate of either College or Hall, he pleads on the same footing that Surgeons T. and J. have pleaded, namely, that he was in the employment of Mr. R. I ask them, is it because their assistant also spent an unlimited time in the house of the said Mr. R., that he is to be possessed and endowed with the requisite knowledge and qualification to act as a general visiting and dispensing assistant? Can they dare to contend for one single moment that he has been regularly indentured to the profession, or even attended one lecture appertaining to the profession? I answer positively, no, for I have his own words for it. Why, then, have they the presumption to allege that their assistant is duly qualified to practise the obstetric art, and that my charge was splenetic and false?"

"Mr. Robt. Hepburn, 8, Davies-street, Berkeley-square, in reference to a Hospital Surgeon's Letter on Chloroform and Dr. Simpson, writes, "It was with the deepest regret I perused in a late number the letter of 'An Hospital Surgeon,' in which he not only deprecates in strong language the use of either ether or chloroform, but has made a most unwarrantable, unjust, and most scurrilous attack on Professor Simpson. I am certain, Sir, that all who have perused the professor's pamphlet are aware that it is entirely free from what he denominates 'puff,' that there are no comments in it in the slightest degree prejudicial to other practitioners, and no attempt whatever to 'allure patients into his clutches;' on the contrary, it is a simple, straightforward, and plain statement of the cause which induced him to use the chloroform, its application and effects; the whole put forward in that subdued and sincere manner which is only the result of true genius."

Letters and communications have been received from A Medical Student, Borough; Chirurgus, Manchester; Surgeon-Dentist, Bristol; F. F., M.D., Dublin; Mr. S. Benson; A Former Student of King's College; Senex, Edinburgh; A Licentiate; A Three Years' Student at Bartholomew's; Scarificator; An Enemy to Quacks; Mr. Charles Braddon, Upton-on-Severn; Mr. J. Jones, Llanfair, Montgomery; Philo-Chlor; Limiricensis; W. P. D., County Down; An Ill-paid Medical Assistant; Mr. Robt. Hepburn, &c.

A HANDSOME PORTFOLIO for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

COVERS FOR BINDING the Numbers of the "MEDICAL TIMES" are now ready, and may be had, by order of any Bookseller, or at the Office, price 1s. 6d.

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No. 430. **SUMMARY.** Dec. 26.

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ORIGINAL LECTURES.

CLINICAL OBSERVATIONS ON SOME OF THE MORE FREQUENT DISEASES OF CHILDREN.

By W. HUGHES WILLSHIRE, M.D. (Edin.), M.R.S., Physician to the Royal Infirmary for Children, &c.

(Continued from p. 151.)

Gentlemen,—When speaking to you of the causes of diarrhœa, I mentioned that changes and modifications of the maternal milk were a source of great disorder to the child. Not only will you find much mischief accruing from this source to children at the breast, but you will discover that a constant plague-spot to them is the habit of many parents—even although they have plenty of good milk—of feeding the child upon some artificial food. The latter is generally composed of some vegetable article, like biscuit-powder, tops and bottoms, baked flour, arrow-root, sago, semiluna, *tous les mois*, and some other rubbish called *pap*. Not only is a child made to swallow, before it ought, such material as it should not have, and, therefore, under the mildest circumstances of its administration, highly improper, but too often such aliment is given in a state which renders it doubly deleterious. Such materials allowed, to stand in a warm nursery, or in the close confined dwelling-rooms of the poor, have a strong tendency, from the mode in which they are made and preserved, to become acescent; and nothing is more liable to upset the digestive functions and induce diarrhœa than the reception of improper and acescent material into the stomach of the child. The evils resulting from the use of such food are also often further added to, by the frequent and nasty habit of the hired pap-giver of placing the spoon in her own mouth, and sucking the food before giving it to the child.

An infant may, perhaps, escape from any serious amount of disordered digestion during lactation, but upon the arrival of the weaning time the chances are then increased tenfold that it should not. Too rapid and entire a separation of it from the breast, too complete an alteration and change in the aliment, or the latter being of an improper kind, acescent, or too frequently administered, will bring about severe intestinal disorder. So frequent is diarrhœa at this period that you are aware one particular form is considered to be proper and common to it.

Those children who are dry-nursed, or brought up entirely by hand, suffer fearfully from the administration of improper food, and in them this is productive of entero-colitis, one of the most fatal of maladies which await them. Instead of such children being nourished upon an animal fluid, approximating as closely as is possible to that of their mother, of which they are deprived, and given to them in a method as nearly simulating that adopted by nature, they are brought or, rather, "dragged up" upon a thickened vegetable "pap," which is administered to them by spoon, and this pap liable to be constantly changed according as the recommendation of friends may suggest, or the advice of some "skillie wife" may offer. "It may be affirmed without dispute," says Bouchut, in his "Maladies des Nouveaux Nés," "that the mortality of infants brought up by hand is far beyond that of children reared by wet-nurses, and the greater number of such children die from the consequences of inflammation of the digestive passages."

In children who have passed through the weaning time, and in those of two years of age, improper diet still holds an important relation as a cause in the induction of diarrhœa.

The action of cold and damp weather on the external surface of children is another cause of diarrhœa, just as we see the same arise from like causes in adults. Children at the breast are not so liable, however, to this combination of actions as elder children are; but, even in the former, suddenly chilling the exposed surfaces will induce catarrhal irritation of the bowels, and increased secretion from their surface will result. Infants are sometimes according to the whim of the mother, clothed very warmly, placed in a warm confined cradle, crib, or bassinet near the fire, heavy clothing thrown over them, and there allowed to lie. Suddenly the child wakes and cries, the clothes are rapidly thrown off, the child taken out, removed to another part of the room, and put to the breast. Should the presence of a stranger or other circumstance cause interruption, it is often removed from the room altogether, and subjected to draughts and a lower degree of heat. These circumstances, too, will take place, not once, but many times a day; and it can be no wonder that diarrhœa should be produced. The well-known influence of cold on the infantile system is well shown by the researches of Villermè in France, and Quetelet in Belgium, which, contrary to those of Schübler of Stuttgardt, of Emerson of Philadelphia, and of Casper of Berlin, prove that the maximum mortality among infants occurs during winter: a conclusion "in accordance with physiological principles, owing to the low state of the calorific function at this period of life."(a) In other countries infantile mortality is highest in the hottest weather; and Dr. Casper believes the difference I have spoken of to arise from the bad custom prevailing in certain Catholic communities, and in those places where the rules of the *Code Napoleon* are strenuously enforced, of exposing the new-born infant to the rigour of the season, in obeying the orders, &c., for civil registration and the adoption of early baptism. "In other countries, where these practices are not adopted, the mortality of infancy is decidedly lower, because the child is withdrawn from the injurious effects of cold. The balance of mortality in other seasons, excepting the summer, differs but little from that of winter; the fact is, infants are very sensitive to extremes of temperature, and easily suffer from them. Hence, the summer is so fatal to infant life, for it is far less easy to protect a child against the heat of summer than against the severe cold of winter."—*Op. cit.*

It is during the middle and latter part of summer that diarrhœa is so frequent amongst children, and by which the rate of mortality amongst them is greatly increased. You know, of course, that, according to the season, so do we have a prevalence of particular diseases, and, with regard to some of them, it is very easy to reason upon the cause and effect. But with others it is not so, and I am unable to tell you why, all of a sudden, on some morning in July or August, more than half the children who are brought to the infirmary should be suffering from intestinal disease. They shall be brought to you from all parts and quarters—have been fed or brought up most variously, in fact, be placed under circumstances having no general relation save the air they breathe, and yet these infants and children shall be suddenly attacked with diarrhœa. I have noticed once or twice that, a few days before I had the *epidemic* diarrhœa to treat, there has been much rain. I think it not unlikely that, after the saturation of the earth, and the great quantity of vegetable refuse it has at this season upon its surface, or contains, with moisture, and the after action of the summer heat upon it, a kind of malarious principle is imparted to the atmosphere which readily affects the highly sensitive system of the child, and has some remarkable but certain relation to its digestive mucous surface. However, this is an assumption you may reject, perhaps, without much loss of truth, still I offer it you for consideration, the more because Dr. Baly in his late lectures, before the College of Physicians, on dysentery, remarked, "From these facts, as well as from the consideration of the whole character of the disease, I infer that dysentery is always produced by a poison introduced into the system from without, and that in most instances this poison is generated by the decomposition of matters contained in the soil." I am aware of the numerous arguments which could be brought against this view of the matter, but I think, if not *always*, *often* may dysentery so arise, and so may the more inflammatory diarrhœa of infants and children from a state of atmosphere having at least a close relation to that which we understand when we term it a malarious one, although it may not be exactly identical. I may state to you also, that between certain forms of dysentery and of the entero-colitis of children there are very close anatomical relations, as also that "so common is the union between remittent fever in all its forms and dysentery, and so evidently are both diseases excited by the same cause, that some writers, as Williams, Bancroft, &c., have believed dysentery to be always, or in the majority of instances, of malarious origin." So do we find that in the more adynamic varieties of the remittent fever of children the bowels are much disordered; the stools are very offensive, watery, greenish, pre-

(a) See the review of Casper's work in the forty-seventh number of "Dr. Forbes' Journal."

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ceded by much griping and flatulence, and frequently passed involuntarily; and in the chronic form "lientery" supervenes. Upon these points, however, I must refer you for further information to an able article in the last number of Forbes, and to Dr. Copland, on "Remittent Fever in Children."

The next cause of diarrhœa I have to mention, and a very frequent and important one it is too, is the travail of dentition. No one can doubt for a moment that the irritation dependent on the evolution of the first set of teeth may give rise to any of the forms of the intestinal disturbances we have already mentioned; but I question very much whether we do not go too far, in this country, in so constantly ascribing every form of diseased intestinal secretion during the travail to the effects of the latter alone. It is the habit with us to lay to the charge of the dental evolution all and every one of the ills which may happen to the child during its occurrence, whilst most of them are really but coincidental evils, whose origin lies elsewhere. From our peculiar notions of the matter has sprung that constant practice of depending upon the gum-lancet as our pilot down this portion of the stream of life, whilst in some other countries, where quite the opposite views are held, scarification of the gingival structures is but rarely performed. We were quite sufficiently impressed with the effects of certain local forms of irritation upon distant organs by sympathetic or reflex actions years ago, and of which our views upon dentition and our operations on the gums sufficiently proved. But we have been urged forward so much further by some later physiological doctrines that we seem to have merged all our notions of the causes of disease into that of mere *reflexion;* and whilst we are told that arthritis or gout is a malady "of a peculiar reflex action," we are also advised, in relation to our present subject, to lance the gums even twice daily in urgent cases, and we have urged upon us "the promptitude, repetition, perseverance, energy, and steadiness of purpose with which I recommend the measure to be adopted." This practice has been carried to the extent proved by the following extract from a letter:—"We have adhered rigidly to the rule prescribed since you saw him. I continued the lancing of the gums twice a day until yesterday, when I only did it once; and the same to-day, as the gums were divided, continue soft and open, and slightly ulcerated."—(See Marshall Hall.)

Exaggerated as are some of our notions about dentition, there can be no doubt, as I have said, that diarrhœa is of frequent occurrence during its performance, and is often to be viewed as its effect. But to indicate the exact relation which exists between the intestinal affection and that of the gums is a difficult matter, and, perhaps, at the present admits of no perfect solution. We find generally that the diarrhœa is of a very mild character at first, belonging rather to the sympathetic type than to any other, and immediately ceasing on the protrusion of the teeth. But in other cases, if the evolution of the teeth follow quickly on each other, the diarrhœa is more prolonged, and changes into the true catarrhal form. In neither of these cases, however, have we any reason to believe that any appreciable morbid structural lesion of the intestine has ensued. But in extreme cases, especially amongst the poorer children, neglected hygienically or maltreated therapeutically, the intestinal irritation will pass into true entero-colitis, and the life of the child may actually succumb. It has been asserted that during dentition there is a great proneness to disordered action of the pancreas, owing to its close relations with the salivary organs, and that there is great reason for supposing several forms of diarrhœa, which are then common, to be dependent on a super and morbid secretion of the pancreatic juice. It will be generally found, I think, that it is chiefly during the cutting of the canine teeth that the most troublesome intestinal disturbance ensues.

Some have regarded the diarrhœa of difficult dentition purely as a nervous or sympathetic phenomenon, proceeding either from translated irritation from the mouth and gums, or as a sort of reflex action radiating from these places as a centre. Others consider a real inflammatory state of the intestinal lining membrane exists, productive of the diarrhœa. Another view has been advanced by Billard, which is, that the travail of dentition and diarrhœa are two coincident physiologic actions having no relation to each other as cause and effect. You will discern his views, perhaps, the better if I translate his own words:—"We may say that nature has fixed for the same epoch the development of all parts of the digestive apparatus, for it is at this time that the salivary glands acquire a greater size, and secrete saliva in greater abundance. This coincidence in the normal development of the teeth and in the increase of volume and action of the follicles may explain the connection which exists between dentition and the serous dejections which happen to infants at this period. We thus easily explain that kind of sympathy noticed by authors between the evolution of the first teeth and the disorders of the digestive tube, without having recourse to those kinds of hypotheses too often made use of in the explanation of the phenomena of life. There is here a coincidence, or, if it is preferred, a functional and morbid sympathy, simply because there is a coincidence of development."

Bouchut has lately made some researches at the Hôpital Necker upon the connection between dentition and diarrhœa, which I have put into the tabular form before you for simplicity of reference:—

Out of 113 cases.
- 26 were free from all indisposition.
- 38 were restless, griped, and had slight diarrhœa.
- 46 had more severe diarrhœa.
  - In 19 the diarrhœa began at the moment of the gingival irritation, stopped when it ceased, and began anew on its supervention.
  - In 28 the dentition was very laborious, the diarrhœa prolonged, gradually assuming inflammatory characters, and terminating in entero-colitis.

In this country especially the power of the intestinal entozoa in giving rise to disease, both of the digestive organs and other portions of the body, has long been held as nearly equivalent to that of teething—in the minds of some persons as even more so. Among the lower order particularly the cause of the disease for which the child is brought to you is constantly indicated by the mother's phrases, "I think she has got worms, Sir," or "I think it must be his teeth, Sir;" nearly everything has at one time or other been laid to their charge. In some places, as at Paris, however, quite the opposite view has been held, and the various symptoms and sympathetic phenomena laid down by many writers as indicative of, or produced by, "worms," have been regarded as chimerical, whilst in some other parts of France they believe in their effects as much as we do. Facts I have not time to dwell upon seem to prove that there are certain countries or localities in particular climates in which verminous affections are very common, even endemic, whilst in others they are very rare; and this will account for many of the opposed statements met with in the writings of the Parisian physicians to those of some of the French "departements." Whilst in Paris verminous disorders are rare, they are common in Holland, Switzerland, Sweden, and many parts of Germany; very frequent in England, especially in the fenny and damper districts; and are met with in the west and south of France. Tænia solium is endemic at Vienna; may be said to be so at Constantinople, and at Cairo, in which latter place, it is said, one-fourth of the population are affected with it. According to the "Recueil" of the Council of Health of the French army, tænia appears to attack particularly the soldiers serving in Algeria. While the military hospitals of the interior of France afforded but two cases in from 1840 to 1846, and the hospitals of the Isle of Corsica not one, those of Algeria furnished thirty-four examples (vol. lxii., 1846). The peasantry of the Tyrol are uninfested by worms, whilst their neighbours, the Swiss, are frequently affected. In England, Lancashire is the county, the inhabitants of which are most affected by worms. Here the climate is mild and moist, and the high hills running along its eastern boundary arrest the clouds which come from the Atlantic, and produce more abundant rain than in other more eastern parts of England. These circumstances are sufficient to show you how variable may be opinions upon the effects produced by worms.

With regard to their production of diarrhœa, I may remark that you will find that, after some degree of constipation has existed in older children, they become often subject to more frequent, but small stools, chiefly of the mucous variety, unattended with sickness and griping. Sometimes blood is mixed with the glairy mucus. In such cases, although some ascarides are found mixed with the small, frequent glairy motions, it is often not until an anthelminthic purgative has been given that the true cause of the malady is seen. Then the frequent sero-mucous motions are found loaded with ascarides, whose previous irritative action on the mucous lining of their domicile can be readily imagined. In a few cases on record far more serious effects have resulted than such as I have just mentioned; and Charcelly and Mondière have shown that dysentery, intestinal ulceration, and perforation may even be produced. Upon these cases, however, I cannot dwell, nor upon the interesting example given by Tormelé, which you will find in the third volume of Rilliet and Barthez. I may also refer you to the new work "On the Diseases of Children," edited by M. Fabre, now in course of publication, and those of you who are French scholars will do well to provide yourselves with it.

Such, as I have told you, then, are the chie causes of simple, uncomplicated diarrhœa, and almost any of them may give rise to any form, whether of the simplest sympathetic or most inflammatory type. An exaggeration or prolongation of cause will induce an exaggeration of or a more intense form of disease. I might, it is true, have indicated some other presumed causes, but upon these my experience will not yet allow me to decide. Rosen affirms that mental disturbance, fear, discontent, &c., will produce diarrhœa; and Bouchut, that great fright and violent passion will do the same. The latter remarks that it may be caused by the visits and investigation of the medical attendant, and by which the child is teased, as also by the dread of, and suffering from, a surgical operation. "I have seen, more than once, diarrhœa supervene after the opening of purulent collections in the neck. At the moment of its performance the child, surprised and agitated, covered with perspiration, passes its fæces and urine, and a few hours afterwards diarrhœa is set up, which continues for one or two days." (Maladies des Nouveaux Nés.)

DUMAS ON ORGANIC CHEMISTRY.

No. XXXIV.

(Continued from p. 111.)

THE FABRICATION OF MANURES—(*continued*).

One of the best known and most frequently employed of the prepared manures is, undoubtedly, the *powder*, procured from the soil taken from our privies, and in which the earthy phosphates are found combined with various fecundating animal matters.

A vast species of manufactory, situated at the very gates of Paris, gives to the fæcal matters which would otherwise be wasted, as we find to be the case in most of the capitals of Europe, a very great value, by reducing them to a form which renders their transport easy. We must, however, acknowledge that the means employed for preparing this powdered manure, at Montfaucon, are very rude, and seem to have been

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expressly chosen for the purpose of wasting a part of those gases most useful to vegetation, and at the same time of infecting the environs and some of the most populous quarters of Paris. Still, as it is better to employ even this process than altogether to lose the fæcal matters, we shall proceed rapidly to describe its several stages.

The preparation of these matters is effected by means of six or seven large basins, which should be as accurately closed as possible, inasmuch as they have to contain the tainted liquors, and are raised above the surrounding habitations. Moreover, we can, at will, make these basins communicate one with another. One of the basins, situated about thirty-five mètres above the level of the Seine, is much more elevated than the others, and is of a much larger size. It is into this reservoir that are emptied the sewage matters or night-soil, brought from the town by means of large casks or vessels belonging to an especial class of contractors. These contractors undertake the emptying of the privies, and the removal of the solid and liquid matters, in consideration of a fixed payment made by the proprietors.

The basin into which the soil is emptied is irregular in form; it is nearly one hundred mètres in length and fifty or sixty in width, being also about ten mètres in depth. It is in this basin that the liquid becomes separated from the solid portion by a process of simple decantation. The fluid parts are carried off by means of a subterraneous tube into one of the lower basins; but, before their withdrawal, they are strained through a coarse kind of sieve, which retains the more solid matters; should any, however, escape, they become deposited in the lower basins. These latter, five or six in number, are from fifty to eighty square mètres in size, but they are less deep than that which receives the soil in the first instance, inasmuch as they are intended to retain much less of the solid matter. As we have already said, these basins communicate one with another, and are so arranged as to allow of the complete deposition of the matters held in suspension by the liquid which escapes from the superior reservoir.

The fluid matters thus run successively through all the basins, excepting that which is in course of working, and, after this long passage, the liquid is again strained through a fine sieve, and then carried off by a pipe into a drain which conveys it to the river. We may imagine that the lower basins will be a very long time before they become filled with solid matters, and in fact they scarcely require emptying once a year; sometimes, indeed, they are left for two or even three years.

When a basin is ready, we allow it to settle for some days; then, by means of a pump or archimedean screw, we force out the liquid from the basin about to be emptied into the next one in succession, provided the difference in level is not sufficiently great for this draining to be effected without the aid of such means. Each basin is emptied in its turn, so soon as it has become the first into which the liquids are directed from the upper large reservoir. This latter itself, when sufficiently filled with solid matters, which usually happens about every fourth or fifth month, is drained of its excess of liquid, and emptied in the same manner as the lower basins.

From the bad arrangement of the basins at Montfaucon, it is necessary to continue emptying the soil into the upper reservoir, even during the period of its working, taking care, however, immediately to separate the most liquid part, and to direct it into the lower basins. This stage might be rendered much more easy and regular, by forming two reservoirs for receiving the matters in the first instance; thus, whilst the emptying of the first was being effected, we might turn the soil into the other.

The working or emptying of the basins is done in a very simple manner. When the matter is sufficiently drained, we commence by opening the passage leading to the bottom of the reservoir, and then gradually remove all the matter; the carts, when filled, are driven to an adjoining open space of ground, where the matter is spread out to become thoroughly dried. The following is the mode in which this desiccation is effected:—The fæcal matter is regularly spread over the whole surface of the ground; then, after the lapse of a few hours, it is raked over, so as to refresh the surface, and thus accelerate its desiccation; this raking is repeated at various intervals, until the soil seems sufficiently dried. We then gather the matter into a heap, and at a favourable opportunity it is spread out once more in a thin layer, and triturated under the foot, so as to reduce it to a coarse powder; we now separate the pebbles and other hard substances, and finally pass it through a sieve.

The *powdered manure* may now be considered prepared, and fit for agricultural purposes. While being kept for sale, it is not uncommonly found in heaps of two or three thousand cubic mètres in size.

There are daily carried to Montfaucon about 600 cubic mètres of solid and liquid matters, which ultimately yield at the most 100 cubic mètres of powder. During the last few years, in consequence of some experiments made in my laboratory by M. Jacquemard, the liquid, which was formerly wasted, is now converted to a useful purpose. A part of it serves for the preparation of sulphate of ammonia and some other ammoniacal salts. A manufactory, constructed on the spot, is appropriated to this object; but certainly not more than 90 or 100 mètres of urine are thus consumed; the remainder, as we have already said, is carried towards the Seine. Within a short time no doubt the improvements in this branch of art will lead to the economization of all the ammonia of these liquids, and even of the other salts which they contain; for it is very probable that, if, after removing the ammonia by means of lime, as is usually done, we were to employ the residue in watering some kinds of meadow lands, &c., we should derive great benefit from the practice, for this residue contains all the phosphates, the greater part of the alkaline salts, and even some of the organic matters.

The *powder*, prepared in the manner we have indicated, sells for about 4f. 50c. the *hectolitre*.

During the last few years, it is true, some attempts have been made to carry on this preparation of manures in the midst of the Forest of Bondy, and extensive works have been erected in that locality. M. Mary, an engineer of the town, is now constructing a pipe of large diameter, for the purpose of conveying to Bondy the liquids previously separated by standing in a basin. The transport and disinfection of the solid matters (which will be thus reduced to about a fifth part) must by this means become comparatively easy.

The arrangement of the basins at Bondy is superior to that at Montfaucon, in this sense, that there are at the former place two complete systems; but the differences in level are less considerable, a condition which will necessitate a greater amount of manual labour. A drain, already formed, will conduct the liquid matters into a sewer at La Villette, which empties itself into the Seine, below the city of Paris. The urine will thus be lost, as is now the case at Montfaucon, notwithstanding that it contains an amount of nitrogen, corresponding in value to at least three times that of all the fæcal matters reduced into powder. There is no doubt but that some day this source of wealth will be turned to profitable account, instead of being allowed to run waste towards the river; already, indeed, we may foresee two ways of using it. The one of these purposes is indicated by the very position of the basins at Bondy, which overlook the entire plain of Saint Denis; we might thus employ these waters in the irrigation of this tract of land, and so considerably augment its fertility. Should it be necessary to dilute the urine with a certain proportion of water, so as to render its action less energetic, the proximity of the canal and the height of its waters, which are above the level of the basins, would render this operation remarkably easy. The quantity of sewage water, which might thus be made use of, is so considerable, that it would serve for the irrigation of a plain four or five times the extent of that of Saint Denis. There is also another mode in which the urine might be usefully employed: namely, in the manufacture of sulphate of ammonia.

Ever since the progress of chemistry has demonstrated the possibility of applying this salt to the fertilization of lands, a host of experiments on this subject have been carried out in various countries of Europe. In England, its employment seems to have led to the best results. In France, also, numerous scientific and practical men have applied themselves to the same question, and appear to have obtained equally happy effects.

Among other trials on a large scale, we may instance those performed by M. Kulhmann, of Lille, and also by M. Schattenman.

If, then, as everything would lead us to believe, sulphate of ammonia may be regarded as the richest known manure, since it contains twenty-one per cent. of nitrogen, we see at once the immense profit that the urines of Montfaucon or of Bondy might be turned to, by transforming them into the above salt by the action of sulphuric acid. We will now attempt to show by figures that, even in the actual state of things, and notwithstanding the addition of sulphuric acid and the cost of preparing the salt, the sulphate of ammonia might be delivered at such a figure that it would become more economical than most other manures. Even at the price which this salt now-a-days commands, it might often be made to enter into conjunction with other manures.

Let us, in fact, compare the sulphate of ammonia with the powdered manure of Montfaucon. The average price of this salt, when perfectly pure and in white crystals, is about 60 f. per 100 kilogrammes; it contains nearly twenty-one per cent. of nitrogen. The powdered manure sells at about 4f. 50c. the 100 kilogrammes, and, according to MM. Boussingault and Payen, frequently contains but 1-6 per cent. of nitrogen. Now, supposing that the value of a manure be exactly proportioned to the quantity of nitrogen which it contains, it follows that 100 kilogrammes of the sulphate would produce the same effect as 1300 kilogrammes of the powder. This, therefore, amounts to saying that 60f. worth of the former is pretty nearly equivalent to 60f. worth of the latter.

It is true that the efficacy of the powdered manure does not depend solely on the nitrogen which it contains, but that we must also take account of its salts, which render it an excellen corrective for most kinds of lands. This powder, moreover, contains some organic matters, which certainly modify the properties of the water and of the air which are absorbed by the roots. But, as the expense of transport of the sulphate of ammonia would not amount to one-tenth part of that of the powdered manure, and as the matters which furnish the other elements than the nitrogen may be procured at a much lower cost, we may hope that the employment of the above salt, combined with that of earth, turf, or powdered bones, will lead to the most economical and advantageous results. The price of the sulphate above indicated is that of the commercial article; should, however, this salt find a new source of consumption in agriculture, its cost might be reduced to 40f., or even lower.

We shall not here dwell upon the mode of manufacture of the sulphate of ammonia, but shall merely add, that the urine brought to Montfaucon would suffice for the preparation of more than two millions of kilogrammes of sulphate of ammonia, representing in the amount of its nitrogen twenty-six millions of kilogrammes of powdered manure, or near upon 100 millions of kilogrammes of ordinary dung. We may judge, by these figures, of what importance it would be to the agriculturist to resolve in a satisfactory manner this question as to the employment of

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the sulphate of ammonia, and to confirm by a well-conducted series of experiments the successful results which some individuals have obtained from its use.

The next question that presents itself, is as to the manner in which the sulphate of ammonia is to be applied to the land? This is a point, however, which has not yet been satisfactorily resolved. Some have recommended it to be employed in solution, in the proportion of one or two parts to the 1000 of water; but this proceeding cannot be applied in all localities; whilst, in every instance, it would necessitate a considerable amount of manual labour. It is probable that we might obtain equally good results, without so great an expense, by sowing it either in a state of liberty, or mixed with earth or chalk, at the same time taking care to choose a favourable period, so that the sulphate shall not prove injurious to vegetation by its too great energy. Hitherto, however, the attempts which have been made with it, under this form, have not been very successful.

We know the great advantage which *animal black*—the residue from sugar-bakeries, &c.—presents as a manure, and the immense profits which result from its employment. But, unfortunately, this animal matter is of a somewhat expensive nature, and commerce furnishes us with a quantity but very insufficient for agricultural purposes; an idea was therefore entertained of forming a manure which should possess almost identical properties, and which might be able to replace it, by turning to account the fæcal matters disinfected by a cheaply-prepared kind of charcoal. This new manure, which is called *animalised black* or *charcoal*, is made from turf which is carbonized and then mixed with sewage matter; we thus produce a substanee possessing several of the properties of the animal black of our sugar-bakeries. In both cases, we have an absorbent powder, somewhat like charcoal, which takes up the ammoniacal compounds as quickly as they are formed, and which yields them back again but very gradually and slowly. Now, this slowness and regularity in the production of ammonia form, probably, one of the principal reasons that give to the black of our sugar-bakeries a value, as a manure, much greater than what would appear to be indicated by the table of equivalents. This slowness in decomposition is especially advantageous in the cases of which we are speaking, for the sole inconvenience in the employment of fæcal matters, when used as a manure according to the ordinary method, consists in their too rapid and energetic action.

In the fabrication of this manure, we must make choice of an earth as rich as possible in organic remains, so that it may, by carbonisation, furnish a sufficient quantity of charcoal; it is further necessary that it should be capable of being readily divided and pulverized, and that, during calcination, it be not formed into solid masses, as happens when the earth is of too clayey a nature.

We must, however, acknowledge that, even under the most favourable conditions, this carbonised earth is far from being able to compare, in so far as regards its absorbent properties, with animal charcoal, and perhaps, in this respect, the processes now employed might be made to undergo some modification. Still, the plan, commonly in vogue, furnishes us with a carbonised earth of a price sufficiently moderate to render its employment extremely advantageous. This preparation, indeed, seems to us the best that could be substituted for that of the powdered dung.

By the employment of the carbonized earth, we are consequently enabled to produce a manure, rich in nitrogen, which retains and turns to profit all the animal substances of the fæcal matters, and which, moreover, presents itself under a pulverulent form, very convenient for the purpose of its application. This manure, which is sufficiently valuable to render it an article of commerce, may be manufactured with rapidity, that is to say, in one month in summer, and in two months in winter, and its mode of fabrication does away with every smell which could prove injurious to the surrounding neighbourhood. The preparation of the powdered dung, on the contrary, requires an infinitely longer time, while the greater part of the ammoniacal compounds becomes lost and disengaged in the atmosphere.

As to the products obtained by these two systems of manufacture, they have a nearly equal value, or the animalized black is in general even the richer of the two; we can, in fact, scarcely fail in giving to it, in the dry state, a richness in nitrogen equal to at least three per cent., and it is but seldom that the powdered manure of commerce contains so large an amount. It is true, that in the powder of Belloni, MM. Payen and Boussingault found close upon 4·4 per cent. of nitrogen, in the dry state; but that of Montfaucon contains only 2·67 per cent. at the most. The mean of nitrogen in these powdered manures may then be set down at 2 or even at 1·6 per cent., in the dry state.

We must, however, acknowledge that, by reason of the mode of fabrication of the powdered manure, it contains, in a concentrated form, the salts and phosphates of a large part of the fæcal matters, and these phosphates, perhaps, give to it, beyond an equal richness in nitrogen, a value greater than that of the animalized black, which contains these phosphates in much smaller quantity. Still, I do not think that this disadvantage, in so far as regards the animalized black, can be very great, for, on comparing the analyses, we find that the relation of nitrogen to phosphorus is nearly the same in fæcal matters, and in a very great number of vegetables. Hence it follows that the quantity of animalized black, which will be sufficient to furnish the nitrogen necessary for producing a good crop, should also yield to it the amount of phosphorus which it ought to contain. Still, it is true that the animalized black is not, perhaps, in this respect a perfect manure, and that, its richness being greater with reference to its nitrogen than with regard to the other principles useful to vegetation, it becomes necessary, as with many other manures, to mix it with some supplementary substance. To facilitate this species of calculations, we ought to form, for the principal mineral substances which enter into the composition of vegetables, tables of equivalents similar to those which have been already made for that most useful of all principles—the nitrogen. The definitive rank of a manure would then depend on the position which it might hold in each of these tables.

The processes used in preparing the animal black, at the works of MM. Baronnet and Company, may be divided into two principal stages: the extraction of the fæcal matters from the cesspool, and their removal to the manufactory; then, their transformation into manure. Before removing them from the pit, these matters have to be disinfected.

Two substances are employed for this purpose, and with pretty equal success. The first is the residue from the fabrication of the sulphate of the protoxide of iron, which may generally be procured at a very trifling expense. Where it is possible to select these residual matters, we should make choice of those which have least acidity, and which contain the greatest possible amount of peroxide of iron, and sometimes also of zinc. We can readily understand the mode of action of these salts.

Another preparation, often employed at the above manufactory for the same purpose, is a solution of the foregoing matter which is poured into the pit, and to which is added, also in solution, an equal quantity of common soap. We have thus formed a metallic oleate, which appears to become more readily decomposed than the sulphates under the influence of hydrosulphuric acid and of hydrosulphate of ammonia. In all cases, the soap and fatty liquids are of use in this operation for the purpose of forming, over the surface of the soil, an oleaginous layer, which prevents the diffusion of the hydrosulphuric acid, and of the vapours of hydrosulphate of ammonia.

This operation of disinfection transforms the volatile ammoniacal salts which exist in the fæcal matters into a fixed salt, that is to say, into sulphate of ammonia.

The fæcal matters are extracted from the pit by means of a bucket affixed to a chain, and moved by a winch. This machine is made to occupy as little space as possible, and it can thus be employed in almost all houses. The pits should be built deep, or hollowed out at the bottom, so as to be capable of preserving the liquids; the matters are thus prevented from becoming too thick. Without these precautions the soil would have to be extracted in the ordinary way. When drawn from the pit, the matters are emptied at once from the buckets into casks, without being for an instant exposed to the contact of the air: for the whole machine is guarded by a tin covering, and the gases which are disengaged from the fæcal matters are compelled, before reaching the air, to traverse a small apparatus containing chloride of lime.

The operation is often performed in this manner in the open day, and the disengaged odour would, on account of the tin covering, be but very slightly perceptible, even if the precaution were not adopted of disinfecting the matters before withdrawing them from the pit.

The fæcal matters are then transported to the manufactory where they are to be converted into manure and mixed with carbonized earth, for the disinfection produced by the sulphate of iron is not of a permanent character. The soil is, therefore, turned into basins, and by means of a shovel we add to it nearly an equal volume of carbonised earth; we mix the whole as perfectly as possible with a long iron rod, then leave the matter to settle, and finally, after raking it up at the most elevated part of the bottom of the vessel, we allow the liquid which still remains to escape by means of small trapdoors. To facilitate this draining of the liquid, the lower part of the basin has a slight inclination downwards along its entire length.

The mixture of carbonized earth and fæcal matters is then spread upon a hard impermeable soil beneath a shed or covering, and dried in the air, care being taken frequently to rake over or renew the surface. When it is sufficiently dried, we add to this first mixture a second time its volume of fæcal matters, and prepare as in the former instance. This process is repeated until the earth forms but about a fourth part of the obtained product, which, in general, takes place after the third addition, provided the operation be properly conducted, and especially where the fæcal matters which are employed contain a large proportion of solid products.

This operation which, under the employment of carbonized earth, gives out but a very trifling odour, consumes about a month in summer, and two months in winter. The most favourable season for the fabrication of this manure is the spring, and we should, if possible, take advantage of that period for forming our principal stock.

As to the carbonised earth itself, it used formerly to be prepared in jars or iron pots, but M. Barennet has substituted for this process a species of oven, which is much more economical. This oven is composed of several inclined frames or shelves, around which the fire is made to play, and upon which the earth is placed. The upper shelves have an iron bottom, but the lower one is entirely constructed of hard bricks. When the earth contained in the lower frame is sufficiently heated, that is to say, when it is of a dark-red colour, it is to be withdrawn from the oven, and the contents of the upper divisions are to be raked down into the lower ones, whilst, at the same time, we introduce a fresh charge into the uppermost box. We thus charge the oven at intervals of three quarters of an hour to an hour each. On its removal from the oven, the earth falls into an iron box, where it is allowed to cool without being exposed to the air. As soon as it is cold, it is ready for use in all those cases where

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we wish to turn its absorbent power to account.

The earth which we employ should be sifted, and reduced to as fine a powder as possible. That of a clayey nature is good, as the ash which it produces is finer and more absorbent; but, when the proportion of clay is too great, it is apt to form itself into brick-like cakes—an accident which we must endeavour to avoid.

A little carbonate of lime, when mixed with the earth, augments its power of division and renders it smoother; we must, however, add but a very small quantity, for, should there be much lime formed by the calcination, it might tend to dissipate the ammonia at the moment of the admixture of the earth with the fæcal matters.

It is further advisable that the earth should be somewhat moist when carbonized, for the watery vapour which is disengaged, when it reaches the lower shelves, draws with it the air which is found in the interstices of the earth on the upper divisions. In this way, the carbonization is effected almost entirely free from air; whereas, when the earth is too dry, it almost always happens that, in place of becoming carbonized, it burns in the lower shelf, although it may be only at a low red heat.

An oven, six mètres in height, is capable of carbonizing, in the twenty-four hours, five or six cubic mètres of earth.

LECTURES ON GENERAL PATHOLOGY,

DELIVERED TO THE

FACULTY OF MEDICINE

DURING THE PRESENT YEAR,

By PROFESSOR ANDRAL.

Reported for the *Medical Times* by D. M'CARTHY, M.D. Paris, &c.

SECOND SERIES. CHAPTER I. (*concluded*).

Various sorts of gas can be expelled from the stomach by eructation. Thus, atmospheric air, carbonic or hydrosulphuric acid, may be rejected and carry with them a certain amount of a very acrid fluid: this pathological fact takes the name of heartburn (*aigreurs*). When gas is emitted during gastric digestion, it is always a symptom of a morbid state of the digestive organs. In cancer, during the first period of the disease, eructation of gas is a frequent symptom; but as the malady advances it is attended with the return of more or less acrid matter. When the stomach is empty, eructation is also met with, but is more frequent in general neurosis, as in hysteria, for instance, than in maladies of the stomach.

Gases may also accumulate in the stomach, and, when not expelled, distend it to such a degree that the organ may burst; this occurrence—extremely rare in man, but which has been known to occur (vide "Archives de Médecine," Aug. and Sept., 1842, a paper by Dr. A. Lefèvre) — is far from uncommon in animals, particularly oxen.

Inspection of the epigastric region leads often to the detection of tumour, of their size and form, and at once causes the presence of fistula to be recognised. Palpation of the same region shows if the viscus be tender on pressure or not, and permits the physician to feel the presence of tumours, generally formed by cancer. A tumour in this part may not, however, be always the sign of malignant disease; a singular case was published in the "Gazette Médicale," for August, 1847, in which hair had been swallowed, and formed in the stomach a hard swelling, which was mistaken for cancer. The changes of position of the abdominal viscera due to their state of vacuity or repletion also modify continually the situation of tumours of the stomach, so as to render their detection a matter of some difficulty, and requiring repeated examinations before a definitive opinion be expressed. Cancers of the stomach are usually uneven, moveable, and only partially dull on percussion; those belonging to the liver are immoveable and completely dull.

Morbid distention of the stomach will be recognised by the form of the enlargement, and the sound produced by succussion; it may be produced by pyloric obstruction, by morbid adhesions between the stomach and the colon or liver, by destruction of the muscular coat in the neighbourhood of the pylorus—the passage remaining unobstructed, by atrophy or paralysis of the muscular coat of the organ. When the pylorus is obstructed, the distention of the stomach is readily accounted for; but when the passage remains free, a portion of the muscular tunic being destroyed by cancer, we must admit that the enlargement has resulted from the impossibility of the progress of the alimentary bolus, and hence its accumulation and the distention of the cavity. Percussion permits us to recognise in the stomach the presence of fluids and of gas; in hypochondriasis, gastric flatulency may be demonstrated by percussion, and is often sufficiently notable to produce dyspnœa. Succussion, also, is sometimes very useful to the diagnosis; in pyloric cancer, for instance, it produces a gurgling sound, which is almost pathognomonic of the disease.

SIGNS FURNISHED BY EXPLORATION OF THE INTESTINES.

The sensibility of the intestines may be increased by disease; it is more increased, however, in colitis than in enteritis. In subjects affected with typhoid fever we observe great differences in this respect, some experiencing little or no pain; others, on the contrary, suffering considerably on the slightest pressure over the abdomen, and particularly over the ileo-cœcal region; these differences are to be explained by the more or less superficial nature of the ulcerations: when they are deep, and repose upon the peritoneum, they are usually accompanied with great tenderness of the abdomen. In the enteritis which is so frequently observed during the last stage of consumption, the pain is sometimes very great, for the reason above stated. In acute colitis, dysentery for instance, the patients complain of great pain, not precisely on pressure, but in paroxysms; the suffering can be traced from the cœcum to the rectum, and causes a sense of weight and spasmodic contractions of a very distressing nature. In chronic colitis more pain is present than in chronic enteritis. Persons who have had dysentery sometimes preserve a morbid sensibility of the intestines, and their motions are most painful, particularly when the bowels are slightly confined—a state of things which requires the combined exhibition of aperients and narcotics. Intussusception is also productive of much suffering, and is attended with obstinate vomiting and other symptoms of strangulation. Accumulation of solid matter or of gas may be equally productive of pain: but tubercles, or cancer of the intestines, do not cause pain; except, indeed, cancer of the rectum. We should also add, that in cancer of the intestines pain is always observed whenever the disease causes obstruction of the tube and prevents the progress of the alimentary bolus. Piles, occasioning congestion of the rectum, may also occasion intestinal suffering; and the burning pain which attends fissura ani is special to that malady.

Most intestinal pains bear the name of colic, to which is superadded an epithet—bilious, inflammatory, nervous, &c.—to designate its nature. Nervous colic, or enteralgia, may arise spontaneously, and is remarkable sometimes by its extreme intensity and the faintness which it produces; it is occasionally the result of rheumatism; and in the disease called "colic of Madrid" it is due to the sudden changes of temperature frequently noticed in the climate of that city. In the neighbourhood of the Ganges a similar form of colic is also observed, under the influence of the same causes. In colica pictonum enteralgia is also present; it is not always relieved by pressure, but pressure certainly diminishes the sufferings of the patient during their exacerbations. The form of the abdomen in this disease is not changed nor its walls retracted, as it has been so often erroneously stated. Nervous colic has been known to assume an epidemic form, at sea, for instance, after the prevalence of cold winds. In the colic caused by copper the pain is also very great, but is accompanied by diarrhœa, and the disease certainly participates more of the nature of inflammation than of that of neurosis.

SIGNS FURNISHED BY THE ALVINE EVACUATIONS.

These evacuations may escape from abnormal orifices, from fistulæ situated on the abdominal walls or from openings into the bladder, vagina, &c. The anus may be imperforate in new-born children, &c. The stools may be suppressed in intestinal disease, at the outset of entero-colitis, or, after diarrhœa or purgatives, in enteralgia and colica pictonum; they also are absent when the passage through the intestines is obstructed, whatever the cause of the obstruction; in cerebral or spinal disease, occasioning paralysis of the muscular coat of the intestines; or when spasmodic contraction of a part of the intestines interferes with the passage of the matter contained within their cavity. In diseases not affecting primarily the bowels we also may find suppression of the motions; thus the bowels are usually constipated in peritonitis, or diseases of the stomach, &c.

The increase of the alvine discharges bears the name of diarrhœa. Thus, in enteritis, whenever the follicles are enlarged, diarrhœa generally appears; this we observe in chronic diarrhœa, in cholera, &c. These diarrhœic stools may consist of mucous matter, or of a bilious flux, which does not by any means require intestinal inflammation for its production, but may simply result from increased hepatic secretion. In other instances the increased number of the motions is caused entirely by a greater activity of the peristaltic contractions of the intestines—a fact we often notice as a consequence of mental emotion, and in the diarrhœa of children, without the interference of inflammation. The quality of alvine discharges may also be modified. They may, for instance, contain undigested articles of food: when the intestines are irritated in one point, it is a fact demonstrated by observation that gastric digestion is incomplete, and allows unaltered nutriment to pass into the bowels: again, when the stomach is incapacitated by disease from performing chimyfication. In children lientery, as this form of malady is termed, is not unusual, and milk is expelled in solid masses with the fæces. When the stercora contain no bile, they are soft and ash-coloured; this symptoms is always connected with the presence of some obstacle to the free circulation of bile in the ductus choledochus or hepaticus. Diminution of the biliary secretion also causes irregularity of digestion, costiveness, and change of colour of the fæces: this state of things, not sufficiently noticed in France, has always excited much, perhaps too much, attention in England. Bile may also be discharged too copiously into the bowels, and communicate to the stools a dark-green or yellow colour. This is generally indicative of intestinal irritation, and may be connected with a morbid state of the liver. The green colour of the expelled bile is due to the modification of that fluid by the accescent state of the intestinal mucous membrane. Biliary discharges are frequently observed in spring and summer; they are even endemic in equatorial climates. The evacuations may be of a mucous nature: in dysentery, for instance, the stools are constituted by mucus tinged with blood; the mucus may be very consistent, and has been in that state mistaken for fragments of tænia, or it may be liquefied and even puriform. In some morbid cases a watery discharge is observed, analogous, perhaps, in nature to the perspiratory fluid secreted by the skin.

The stools may also contain substances which are not usually met with in the intestines: a portion of intestine, for instance, detached by gangrene may be expelled; fragments of false membranes are sometimes rejected. Blood, when it has been recently extravasated, may pass with

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all its physical characters into the motions; but when the internal hemorrhage is less recent, it generally communicates to the evacuations a black colour. The former is observed in piles, dysentery, &c.; the latter in typhoid fever, and cancer of the intestines or of the stomach. The rice-water stools of cholera have been said to be constituted by the serum of the blood, and on this hypothesis an ingenious theory of the disease has been constructed. The fluid of these motions contains, however, no albumen, and, therefore, the theory falls to the ground; as to the white particles which float in the fluid, they are formed of innumerable corpuscles, furnished with very distinct nuclei and nucleoli, and are perfectly analogous with the corpuscles of pus. Pus is also found in the alvine discharges, and is always the symptom of a certain number of well-determined maladies; it is found in ulcerous colitis and in advanced cancers; in abscess of the liver and ovary; and may result from the opening into the intestines of purulent collections formed in various parts of the pelvis. False membranes, detected in the stools, are the sure signs of inflammation of the intestines. Intestinal or hepatic entozoa, calculi and foreign bodies may also be contained in the motions. Their colour is sometimes changed by various medicines: they are coloured by calomel, green, and black by iron. Microscopic examination of the fæces in cancer would probably show them to contain cancerous cells; and crystals have been met with, which Dr. Remak, of Berlin, erroneously asserts to be special to typhoid fever.

Gases may be produced in the intestine, hence borbyrygmi, indicative of indigestion and enteritis; hence, also, tympanitis, which is produced whenever an obstacle interferes with the circulation of the contents of the bowels, or in fevers, when the nervous system participates in the general disturbance. It is a singular and unprecedented fact, that in typhoid fever it is not the diseased part of the intestines which is occupied by tympanitis, but the colon; in fevers this accumulation of gas is always a sign of the most unfavourable nature. In neurosis, tympanitis is also a common symptom; we find it in hysteria and in hypochondriasis.

By ocular inspection we detect many diseases of the digestive tube: meteorism, tumours, piles, cancer of the rectum, syphilitic sores, fissura ani, fistula, abscess, displacement of the rectum, &c. Palpation informs us of the presence of fluids and gas in the intestines, shows the presence of stercoral tumours or cancerous degenerations, spasmodic contraction, intussusception; and percussion permits us to ascertain correctly the volume and shape of tumours, &c.

In our next lecture we will begin the study of the signs furnished by the organs of circulation.

ORIGINAL CONTRIBUTIONS.

THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

By GEORGE CORFE (Author of "A Popular Treatise on the Kidney," &c.), of the Middlesex Hospital.

[Illustrated by Portraits of Cases.] (a)

(Continued from page 154.)

HYSTERIA.

How shall I commence a description of this protean form of disease? I scarcely know in what manner to begin, or where to extend my observations, for truly this singular deviation from healthy nervous energy does so constantly tinge, or disguise, or mimic other diseases, that in the whole class of female disorders it is ever creeping in, more or less, to the annoyance of the patient, and to the still greater perplexity of the medical man.

But as I am to notice those cerebral disturbances, the symptoms of which assimilate themselves so much to those of real diseases of the brain, and lead the practitioner oftentimes to suspect cerebral lesion, or poison, or inebriety, when there is neither the one nor the other, I would at once describe a case, such as it is our lot to meet with contiually in this building.

It is usually about the dead of the night, at least most commonly in the evening, that a large posse of police, with a fair attendance of women, carry into the out-patients' room a female, strapped down on the stretcher. It is stated that she has had a fit, and screamed and became so violent that all efforts to control her were quite ineffectual. We are summoned to the case just as we have retired to bed, perhaps; we find a fat, healthy-looking young woman prostrate on this stretcher. Her eyes are fixed, pupils dilated, acting slightly under a strong lamp; she is pinched, slapped, her hair pulled, and every effort made to rouse her, but all is in vain. Perhaps we may see through the case at once, however, the moral force here is invariably more effectual than the physical. We notice a nictating eyelid, and a snort or groan is given, yet there she lies unconscious, apparently, to all that is going on around her. We raise a commanding and authoritative order that all persons shall be immediately excluded; thus, "Policemen turn out the whole of these persons, both male and female." "Four policemen stop here to assist us;"—pausing. "Now, policemen, bring her up to the light;"—again pausing. "Some severe measures must be taken in this case, Mr. House-surgeon." "Nurse, bring in two or three pails full of cold water." "You, night-nurse, go and procure two or three thick blankets." "Call up the surgery-man to shave the head." "Get the stomach-pump in order, if you please, Mr. House-surgeon." And thus one order follows another; the policemen stare, and are all attention and mute; there is a pause between each order so given; the medical officers whisper together as to the probable exposé that will soon take place, and whilst the cold water is running into the pails, and the blankets are being passed around her waist, and the clack of the large scissors is heard over her fine but dirty locks of hair, our patient opens her eyes, and with (apparent!) astonishment cries out, "Where am I?" "What are you going to do with me?" "Let me go home!" "O, mother, do take me away from these cruel brutes," &c.; and thus often and often does our patient get up from the stretcher, rub her eyes, walk about the room, and leave the building without a single attempt made on our part beyond this to rouse her. A young woman whom I admitted on one occasion lay two days and nights in this state, until I was worn out with the deception, though I did not at first suspect the case to be hysteria; and, having bound her down in bed, I stood over her, together with the house-surgeon, and kept up a stream alternately of cold water upon her forehead for the space of a quarter of an hour, when she roused up, and cried, "O, Mr. Corfe, do have pity upon me, and don't drown me outright." This young woman had frequently been a patient in the medical wards before, with almost every form of hysteria; for instance, she walked on the tip of one toe, with the hip and heel elevated, for nine or ten months; this was ultimately conquered by the cold douche and moxas; but when this fit arrived, I was posed, and could scarcely believe it to be hysterical in its character, until I had narrowly watched her during the whole of the second day.

But it would lead me too far astray from the subject in hand if I was to relate a third part of the perplexing, obstinate, and deceitful cases that have presented themselves to my notice under this head; truly one might easily compose a large volume upon the subject, and, when completed, little information, and no practical benefit probably, would be derived from its perusal; these cases must be seen repeatedly, their phases watched and compared, one with the other, before the practitioner can be led to suspect hysteria where it exists.

There are other cases, however, in which females become extraordinarily excited, and this usually occurs from a small quantity of liquor taken upon an empty stomach; their passions are excited, and rouse up the mind to the highest pitch, and they are dragged or carried into the hospital, screaming outrageously, tearing the hair, knocking the head on the floor, rolling about like maniacs, nay, I question if any scenes are witnessed in a lunatic asylum similar to these repeated exhibitions in our large hospitals. Now, all attempts to pacify such persons by ordinary means, as by argument, by medicine, or by reasoning, are fruitless; they are like eels for wriggling, and like bulls for fierceness and strength; our only alternative is to fix them on the stretcher, and strap them there; mount a chair placed on each side of the head, and keep up a constant small stream of cold water on the face; and the more they scream, the more cold water they are obliged to gulp down their throat, until the globus is conquered, the head cooled, the passions subdued, and, when they really find that we give the more in proportion to the screaming, they become calm, and sue for pity in some such language as, "O pray, Sir, let me up;" "Don't, pray, give me any more;" "I am very well now;" "I'll make no more noise," &c. &c.

It must be always borne in mind that the pitiable subjects of epilepsy present another train of symptoms from those I have cursorily described, and yet there is such an apparent assimilation in the two paroxysms that even a practised eye cannot, at all times, decide which disease the patient is labouring under. However, I shall briefly relate the main features of the two diseases. The hysterical patient throws the trunk and limbs about with strong convulsive movements, wriggles from side to side; there is no distortion of the features, there is no foaming at the mouth, no fixedness of the eye, but it rolls about, and the lids nictate, sometimes in the most rapid manner; the pupils obey the stimulus of light, the skin is hot, the pulse is quick; there is no loss of consciousness, but grinding of the teeth occasionally, though the tongue is never bitten.

The epileptic patient lies more tranquilly, though there are convulsive throes, yet they are regular in their action, and confined chiefly to one side of the body; she is not unmanageable, a nurse can usually control her movements. The face is more or less distorted, livid, and foam issues from the mouth with or without blood; the expression of the countenance is always altered in a paroxysm of epilepsy, but rarely so in hysteria; indeed, the distortions are as frightful in the one as the features are placid in the other; the cornea is bright and glistening in the former, whilst it is dull, or lifeless, or expressionless in the pitiable epileptic. I never was deceived yet by the state of the iris before a strong hand-lamp in these two diseases. In hysteria it will contract readily, again dilate and again contract so long as the light remains before the cornea; the eyeball will roll and oscillate under this stimulus.

But the eye of the poor epileptic will evince none of these movements under a strong light. Often and often have I suddenly darted the strong glare of a lamp at a "fit case," brought in by the police on a stretcher, and though there were no symptoms of consciousness before, she has heaved a deep sigh, opened her eyes, turned away her head, and evidently showed herself up to be in an hysterical paroxysm. A few smart showers of cold water, from a quart jug, have soon brought her to her senses. Senses! should I say? No; brought her to unmask and exhibit some of her real characters. I am willing to admit, with the most eminent authorities of the present day, that many of these hysterical paroxysms only occur in those females where the uterine functions are more or less disturbed, and the general health impaired; and that, to a cer-

(a) These portraits, which are painted from the life, by that eminent artist, George Foggo, Esq., are to be seen in the museum of the Middlesex Hospital School of Medicine, a woodcut being deemed inefficient to carry out the peculiar features and tint of each countenance.

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tain extent, they have not a control over these fits, when they approach, so as to shake them off. But by far the largest number of females who are either brought here, or who are seized in the wards of the hospital, present no such history. Their passions of jealousy, envy, rage, malice, or disappointment have been roused, they have "worked themselves" up into a rage, and at length have gone off into "a fit." Now, the history of many such patients does not enable you to lay down the proximate cause of this attack to any functional disturbance. When calm, they will inform you that they were in excellent health; that they were annoyed, excited, or chagrined at some occurrence or other, perhaps a mere trifle, and they have "boiled up" at it; and thus reason has lost her sway, the reins have been let loose upon the neck of the evil passions of the heart, and woman are thus ungovernable and no longer able to attend to parental advice or submit to any control.

There is also an epidemic character about hysteria: a whole ward has been infected by it upon the admission of one strongly marked case: globus has arisen in this one; pleurodynia in another; syncope in a third; nervous crying, sobbing, barking, hiccoughing, and laughing in another; a fractious and determined opposition to all discipline in the ward, or an obstinate refusal to take medicine, or be on amicable terms with the nurses and other patients, has sprung up in many more, so that there is a complete mutiny amongst the whole, some criminating others, and recrimination following in return. In the midst of this worry, vexation, and, to my mind, most annoying state of things, we are suddenly called to a case in the ward of "a girl in a fit." The paroxysm is well marked, and, without any ceremony, we commence a thorough sousing of cold water; the patient soon rallies out of it: the whole ward is in consternation at the boldness and "cruelty" of the treatment, but to a certainty, almost, we hear of no more hysteria, or hysterical symptoms, for months afterwards. Nay, I have transferred quarrelsome, irritable, and hysterical patients from a disturbed ward to one that was quite orderly and free from the malady, and the infection has run through the room, until some severe measures were adopted to "nip it in the bud." Can any argument be stronger than this, that there is very much more under the control of the will than some writers upon this subject are willing to admit?

A striking instance occurred some time ago in proof of this assertion. My valued friend James Clayton, Esq., requested me to accompany him in one of his usual visits to a female charity-school, to which he is surgeon, in the suburbs of London, in order, as he observed, that I might witness a very curious pathological scene. I was not made acquainted fully with the singular phenomena that were to be presented to my notice; indeed, it would have baffled description: for we were shortly ushered into the sick dormitory, when no great stretch of the imagination would have led a person to suppose, who had been introduced into the room blindfolded, that he was in a menagerie of gallinacea; there was, in short, the squall of the peacock, the quack of the duck, the crow of the cock, and the cackling of the turkey sent forth by a group of eighteen or twenty girls between the ages of twelve and sixteen. It was most ludicrous, and "the uproar in the building now became alarming to the neighbourhood, and from the loudness of the sounds it was difficult to separate the patients effectively;" and yet the above-named gentleman had attempted various means to eradicate this imitative epidemic from the school, but it had been hitherto ineffectual; and one of the main objects of my visit was to inform them all, before me, that I had made arrangements at the hospital to receive them there, where they would be roughly handled with showers-baths, &c. &c., unless the complaint left the house.(a) This information had its desired effect: the thoughts of going into a hospital, before they were really *ill*, drove away this mimicry and worrying noise, and I have not heard that it has ever returned.

Some pathologists would probably consider the above epidemic more entitled to the name of chorea than of hysteria, but we must place it, I apprehend, where the zoophytes are placed in natural history, that is, between the two kingdoms, as it partakes of the character of both of these diseases in some respects.

A plump and well-formed child, only ten years of age, is now in the hospital, who has been kept on her back upwards of four months, for reputed spinal disease; the countenance is placid, the voice unusually deep-toned, the legs drawn up to the abdomen, the bowels costive, and the tongue furred. Both Dr. S. Thompson and Mr. Shaw, contrary to my suspicions, declared that it was purely nervous and totally unconnected with spinal disease. The former gentleman desired that the child should have cold affusion to her body by means of sponging daily, and that she should be made to walk a little, if possible. To my surprise, when she was, after much labour and perseverance, made to put her feet on the ground, it was apparent that, if her mind was engaged by conversation and repeated questions, the legs were placed on the floor, and used as well as a healthy person, but that, if she was allowed to stand still and "look at her legs," the knees tottered, bent, and down she sank and squatted on the floor. Seeing through this nervous trick or fraud, I then used rather rough language, scolded her, and made her walk again and again down the ward, till at length, in a few days more, with patient labour, firmness, and yet some coaxing, she had made so much progress that I yoked her arm in arm with a bad case of chorea of the left side which came into the ward. But it was observed that the little urchin had depth of discrimination enough to walk on the side, and take the arm, of the calmer half of the chorea girl. In remonstrating with her for not taking the other arm on the wriggling side, she coolly looked up and said, "O Sir, that's the dance arm, and I can't hold by that." However, she was ordered to make friends with the dance arm, and, as the girl was half a foot taller than this child, its rotary motions, as they walked side by side, soon brought her to feel that walking *without* such a restless companion was by far the pleasantest mode of exercise and progression. This is the only instance that I can remember of such a well-marked form of nervous depression, idleness, and indolence, occurring in a child who had not completed her tenth year, and yet it formed a most ludicrous though instructive lesson to the whole medical class. But the cerebro-spinal system often participates in this sluggish, morbid action to such an extent, that the patients are convinced that they can neither walk nor sit.

One of the many remarkable instances of this description occurred here a few years since. A plump, healthy-looking woman was admitted into the physician's ward, whose mother stated that she had a disease of her spine, that she had never been able to walk for nine years, and had wholly kept her bed during that period. On examination of the spine, which was quite straight, though morbidly sensitive in every part, the surface bore evident marks of the treatment she had undergone from various medical practitioners who had seen her. Eschars from issues, setons, cupping, leeches, and tartar-emetic ointment were profusely scattered over the whole column. Her mother, it should be observed, was entirely supported by the kind contributions of several ladies and gentlemen in the neighbourhood, who subscribed small sums weekly for the support of this widow and her only daughter. The first thing we did was to dress her and to place her on her legs, when by dint of bullying, drilling, swinging, and dragging one leg after another, we succeeded in ten days in making her walk up and down the ward leaning on the nurse's arm, and in three weeks from her admission she was walking with firmness and alone in the hospital garden. The mother came to visit her daughter, and, seeing her moving about the ward alone, commenced a most violent tirade of abuse against the daughter, nurse, and the medical gentlemen, for making the woman walk. Her language too plainly betrayed her real sentiments; for it was certainly not joy on beholding her daughter's perfect restoration in the use of her limbs in the short space of three weeks, but rage at the loss of her weekly allowance. Accordingly she went round to the families and set afloat the most vicious lies respecting our treatment of the woman, and, of course, no small share of scurrility was heaped upon my back; this brought many inquirers to the hospital, and when these kind friends heard the real state of the case, and saw the patient in rude health walking about the wards, they were so indignant that they very properly withdrew all support from the deceitful couple.

In another instance, a young, healthy-looking woman had been on crutches for nine months with diseased hip-joint, so called; her toe only touched the ground, and she declared she could not walk without these supporters. I immediately took away such unnecessary props, placed her upon a high table, and made her swing her legs for two or three hours in the course of each day. I then drilled her up and down the ward, and at length, by hard and laborious perseverance, she walked out of the hospital in a few weeks as firmly as the most robust person, and more grateful to us for our labours than the preceding individual.

(To be continued.)

(a) These curious cases are drawn up in detail by Mr. Oscar Clayton, and will be found in the twenty-sixth volume of "The Medico-Chirurgical Transactions," 1843.

CHLOROFORM IN CAPITAL OPERATIONS.

Communicated by E. THOMAS, Esq., House-Surgeon to the Cumberland Infirmary, Carlisle.

At present the medical press in this country teems with accounts of operations performed upon patients whilst under the influence of the new anæsthetic agent, chloroform; an abridged account of three cases, where it was used by Mr. Page, may not be without some interest to your readers. Mere sketches only of the cases are given, yet, perhaps, sufficient detail for the purpose in view, without comment or inquiry.

CASE 1.—COMPOUND COMMINUTED FRACTURE OF THE LEG—AMPUTATION TWENTY-FIVE HOURS AFTER THE INJURY—DEATH ON THE SIXTH DAY AFTER THE OPERATION.

A railway labourer, aged forty-five years, admitted from Moffat, in Scotland, into the infirmary, at two A.M., on Sunday, Nov. 28, under the care of Mr. Page, in the following condition:—Cold and quaky; pulse small and feeble; much exhausted from loss of blood, and fifteen hours' unavoidable suffering, and a journey of fifty miles. Upon examination the right leg at its lower third was nearly severed by an oblique lacerated wound. Wine, brandy, and beef-tea were administered, and heaters applied externally to the feet and back. Reaction soon followed, and, when fully established, Mr. Page resolved upon amputating below the knee, as the most favourable opportunity under such circumstances. A drachm of pure chloroform was sprinkled upon a dinner napkin, folded into a conical shape, and thus applied to the mouth; in a few moments he became unconscious, talked loudly, and, judging from his discourse, apparently busily engaged at his work and in conversation with his mates. The inhalation produced no cough, but his propensity to spit and to spatter proved rather annoying to the assistants. Six or more vessels requiring ligatures, the flaps were placed in apposition, and maintained so with long strips of wet lint. He soon recovered from its soporific effects, and, when questioned respecting his past sufferings, said that he felt no pain. The subsequent history may be thus summed up:—First day, as usual, after a painful operation, he was ordered a drachm of laudanum, and every hour beef-tea with a little brandy, which he seemed to take with relish; late in the evening the same quan-

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tity of laudanum was repeated, which produced some refreshing sleep. Second day: He was fed as on the previous day, and towards evening he began to wander. Third day: The stump was dressed with water-dressing, the anterior flap sloughing, the discharge thin and fetid, hiccough very troublesome, talked incoherently when alone; he was fed with eggs, brandy, and beef-tea. Fourth day: Passed a restless night, hiccough distressing, unconscious of his condition and situation. Fifth and sixth days: Constantly harassed with loud hiccough, continually muttering, opiates producing short intervals of relief. He died in the evening without a groan. On examination after death, the main vessels were found healthy; in the ham, beneath the popliteal vessels, there was a considerable quantity of extravasated blood, but the large vessels were uninjured. The left fibula was broken, and very extensive extravasation of blood found amongst the muscles on the front and back of the left leg and thigh; the abdominal and thoracic viscera were healthy; the mucous membrane of the duodenum was very vascular, this membrane, otherwise, throughout was healthy. Minute crystals of lithic acid, in clusters, were found attached to the calyces in both kidneys, doubtless a recent formation, owing to the sudden change in his diet.

CASE 2.—FRACTURE OF THE LOWER THIRD OF THE LEFT THIGH—COMPOUND FRACTURE OF THE LEFT FIBULA—GANGRENE ON THE THIRD DAY, AMPUTATION ON THE SIXTH, DEATH ON THE EIGHTH DAY AFTER INJURY.

A railway labourer, aged twenty-three years, admitted from Moffat at two A.M., on Sunday, Nov. 28, under the care of Mr. Page, much in the same condition as the one before mentioned. He was treated in the same manner, and the mangled limb loosely fixed to a well-padded Desault's splint, with every precaution observed so as not to produce undue pressure; notwithstanding, gangrene appeared on the third day, and on the sixth it was limited by a line of demarcation to the upper third of the leg, when Mr. Page resolved on amputating the thigh.

The patient was subjected to the effects of chloroform, in the same manner and in the same quantity as before, and with very similar results, except that this man became more unmanageable, hooting, bawling, and singing old ballads during the operation. The stump was dressed with long strips of wet lint, and the man put in bed. He soon recovered, and said in reply, that he felt no pain. He had a drachm of laudanum immediately, which was afterwards repeated after an interval of two hours; this eased him, but though easy he was very restless during the night.

Second day. He was observed to wander a little, but took a good deal of nourishment; though the pulse was small and scarcely perceptible in the morning, he rallied wonderfully towards evening; towards midnight the delirium increased, the pulse became fainter and fainter till three A.M., when he died, despite all that could be done to avoid the fatal termination by means of stimulants of every description.

Upon examining the stump after death, gangrene had not reappeared; the main trunks and the smaller ones, which required ligatures, were healthy. The large vessels in the amputated limb were pervious to the lower border of the popliteal space, where the calibre of both had been obliterated by coagula adhering firmly to their walls. The artery, vein, and nerve escaped injury at the seat of fracture. The condition of the vessels below the knee could not be ascertained, on account of the decomposed state of the whole thickness of the limb. The thoracic and abdominal viscera were healthy.

CASE 3.—COMPOUND COMMINUTED FRACTURE OF THE LEG—AMPUTATION ON THE SIXTH DAY AFTER THE INJURY—PATIENT RECOVERING.

A railway labourer, aged twenty-one years, admitted from Moffat, at two A.M. on Sunday, Nov. 28, under the care of Mr. Page. The left leg at its middle was much shattered, but his system had not suffered so severely from the shock as that of his mates. Mr. Page saw him upon his admission; he had it placed upon Luke's splint, supported on a cushion, wishing to save the limb, if possible.

He soon rallied, and for two or three days progressed favourably; but by the fifth day extensive suppurative inflammation had been set up; and, in addition, his appetite, before good, was failing, and his rest, before unbroken, was disturbed with pain and spasms in the leg. It became evident that amputation was the only measure remaining.

On the sixth day Mr. Page removed the thigh at its lower third, the patient having previously been placed under the influence of chloroform, in the same way as before mentioned. In a few moments he became unconscious, and just as the limb was about to be transfixed he had a violent convulsive fit; this caused a little anxiety and delay. The fit being over, the operation was performed. The patient by this time being half conscious, he was rather troublesome and disposed to be violent.

The stump was dressed in the same manner as the others, with wet lint, dispensing in all, for obvious reasons, the application of sutures; and, with the exception of a little wandering and muttering after the operation, which drachm doses of laudanum, with stimulants, checked, and procured a good night's rest, he has since been going on most favourably, notwithstanding the unpleasant phenomenon produced by the inhalation.

CHLOROFORM APPEARING TO SUSPEND UTERINE ACTION.

By ALEX. TYLER, M.D., Physician-Accoucheur to the Anglesey Lying-in Hospital.

Having administered the chloroform this morning to a young woman, an intern patient of the Anglesey Lying-in Hospital, I hasten to let your readers know the particulars of the case, as at this time all facts in connection with the administration of this new anæsthetic agent must be of value and interest to the profession.

I feel much pleasure in corroborating the accuracy of Dr. Rigby's statements, contained in the last number of your valuable periodical, with regard to the recession of the presenting part of the child during the state of anæsthesia, evidently indicating at least temporary suspension of uterine action as one effect of this powerful agent.

The patient was a primapara, and had been in active labour (by the pupil's account, excruciating) for upwards of twelve hours, until eight A.M., when I saw her. The head had then descended fully into the pelvis, and was protruding during a pain between the labia. An enormous tumour of the scalp had formed. She had one powerful pain on my entering the ward, and in less than five minutes another, equally strong, during which she besought us to relieve her present state of agony. Under these circumstances I at once administered the chloroform, sprinkled on a napkin, and held before the patient's face, as directed by Dr. Simpson. The effects were rapid, and exceedingly gratifying as regarded the patient's feelings: she appeared at first to fall into a tranquil slumber, then talked for a little about her affairs; but all uterine action ceased for a quarter of an hour; and, on a vaginal examination being made, the head was found to have receded between one or two inches. Uterine action appeared to return as the first effects of the drug wore off, and in the opinion of all present (Doctors Ireland and Mason, and a number of pupils) was again suspended on the renewal of the chloroform. I kept up its influence for three quarters of an hour, during which time the head made no advance. At the request of the gentlemen present, I ceased administering it. Soon after this powerful pains set in, and advanced the head upon the perineum. As she again entreated to be relieved from her suffering, I once more allowed her to inhale the chloroform, and at the same instant observed the head of the child to recede as before. My pupil, who was anxious to be relieved of his attendance, then requested me to withdraw the napkin, soon after which the expulsive pains returned, and the woman was delivered, about half-past nine, of a still-born male child, chord once round its neck. The usual resuscitating means were had recourse to, and finally crowned with success.

The uterus contracted as usual, and the placenta was removed from the vagina twenty minutes after.

WESTMINSTER MEDICAL SOCIETY.

Dr. Webster, President.

Dr. Ogier Ward read a paper on

THE TREATMENT OF ASIATIC CHOLERA IN THE STAGE OF COLLAPSE.

He confined his observations to the collapsed stage as being the most fatal, and, therefore, the best test for the utility of remedies; and in order that he might effect his purpose of ascertaining the most efficient remedies impartially, neglecting the results of his own experience, derived from nearly four hundred cases, he had investigated the numerous reports and returns to Government on the subject, and had thence selected those remedies which, from the statistics of the numbers cured by their use, or from the description of their direct effects, appeared to be most trustworthy; and he had the candour to state, that by this process he had been induced to regard with more favour certain remedies which a prejudice, derived from a limited experience, had led him to consider as worse than useless. In reply to those who thought no treatment of any service, he instanced the frightful mortality in India, Persia, and Russia, where little or no medical aid was procurable; and took occasion to congratulate the medical men of this country on the low rate of deaths (one-third) compared with the mortality in France or any country in Europe, which he attributed, under Providence, to their superior practical knowledge of disease in general. The idea of the nature of cholera that seemed most consistent with its symptoms and with the effects of treatment was, that it is the prolonged cold stages of a peculiar form of fever, presenting more analogies with continued than intermittent fever, the effect of a poisonous miasm, which, if very intense, destroys the patient, without the occurrence of any active symptoms, in a few hours; but in other cases induces a gradually increasing congestion of the internal venous system, which relieves itself by the effusion of serous fluid into the stomach and bowels, which is as speedily removed by the actions of vomiting and purging. The blood thus deprived of its serum becomes thick and black, and is deprived of its vital properties to such a degree, that, unable to imbibe oxygen in the lungs, it ceases to stimulate the heart, which organ is thus unable to propel the blood to the extremities or through the lungs. This is the stage of collapse, in which the patient is blue, cold, pulseless, and voiceless, and his features are shrunk to such a degree that his dearest and nearest relatives do not recognise him; and this is the most fatal stage and that least under the influence of remedies. Nevertheless, even under these deplorable circumstances, we must not relax our exertions; and the list of curative means employed with success proves that much may still be done for the relief of the patient. The most approved external remedies were, external heat, cold affusion, and counter-irritants. The author attempted to account for the favourable opinion of the application of cold in Persia, and of heat in Russia and the rest of the northern countries, partly by the concordance of such ideas with the ordinary feelings of the inhabitants of such different climates, and partly by the notion that in Persia, where the thermometer is above 98° in the sun, the patients, exhausted of their fluids by the disease, would be dried up and mummified by any attempt to keep up the temperature of the body by exposure to the sun's heat; whereas in Russia, &c., it was supposed, and probably with truth, that as cold is a direct sedative, its opposite, heat, was necessary to

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restore the vital powers. All the reports concur in the efficacy of cold affusion in inducing reaction; and its success appears to have been in proportion to the violence of the shock. Counter-irritants were successful only in connection with other remedies; but they deserve attention from their stimulating power, and their readiness of application. Bloodletting was useful in every stage in relieving the congestion and rousing the heart by removing the load that oppressed it. In the state of complete collapse salt-and-mustard emetics, to excite the system, followed by bleeding, was a favourable mode of treatment. The internal remedies most to be relied on in the stage of collapse may be classed under the heads of revulsives, stimulants, and specifics. The first class, besides emetics of salt and mustard, comprised tartar emetic and croton oil, and calomel in large doses. The effect of each was to check the vomiting and purging; but the three last were remarkable for their power of restoring the flow of bile, of a dark-green colour, when tartrate of antimony or croton oil had been used; and like blue ointment, when the calomel had been given. The action of all three is supposed by the author to be irritating to the mucous membrane of the stomach and bowels, of which it stops the secretion by changing the action of the part. The blood thus diverted from the membrane returns without loss into the portal system, and, by the secretion of fresh bile, previously pent up in the gall-bladder, is expelled, the spasm of the duct having been relaxed by the irritation of its orifice, produced by the tartrate of antimony, calomel, or croton oil. The blue colour of the bile when calomel was used may, perhaps, be explained by the decomposition of the salt by the alkali of the bile. From the number of returns in its favour, besides the extensive experience of the author in its use, he is disposed to place most reliance on the croton oil, as its action is simply irritant (many of the patients complaining that it made their throats sore when given in solution or suspension); whereas the tartar emetic is a direct sedative, and, hence, may be dangerous; and the author had given calomel most extensively in large doses without ever having seen such effects produced as those which he has mentioned above from the reports of others. Stimulants, after a fair trial, were almost universally condemned; and yet it is remarkable that M. Magendie had more success with his punch than any other of the Parisian physicians. His great rival Broussais was so unsuccessful that he entirely relinquished his care of cholera patients at Val de Grace. Opium, either in small doses as a stimulant, or in large ones as a sedative, was equally unfit to be relied upon. The last class—specifics—comprises calomel, with or without opium, cold water, salines, and quinine. Although the author never met with a single case of real cholera in which he could trace the recovery of the patient to the influence of calomel, nor ever observed that it produced any specific effect whatever, still, from the almost unanimous approval it has met with, and his own experience of its benefit in English cholera, he would strongly recommend it for future experiment, as being, at the least, perfectly harmless, though taken in enormous doses. He would also adopt the use of cold water *ad libitum*, upon the faith of the reports in its favour, though his own experience is decidedly opposed to it. Salines, on the other hand, when well diluted, have, besides a number of most favourable reports of their efficacy, this hypothesis in their support—viz., that they restore to the blood by their endosmosis through the coats of the vessels, if not by their being absorbed directly into the circulation, the saline matter removed by the serous evacuations; whereas, the water, if it be not rejected by vomiting, as in the author's experience, could scarcely be absorbed, the tendency of the venous system being to empty itself; nor, if it were absorbed, could it supply to the blood those saline elements of which it had been deprived. In the author's experience, the best mode, though a painful one, of arresting vomiting in all cases, is to keep the stomach empty; when, after a time, it will cease to suffer the action of vomiting, whatever that may be. From an attack of English cholera he suffered, and thus cured, the last efforts of which produced only bloody mucus, as well as from other similar results after emetics, the author believes that the stomach contracts itself during vomiting. Quinine, viewed in reference to the hypothesis of the intermittent nature of cholera, seems worthy of further trial than it has yet experienced. In conclusion, the treatment recommended by the author in the stage of collapse would be the following, and much in the same order as the remedies are stated:—Cold affusions; hot air; external counter-irritation, and frictions; venesection; mustard-and-salt emetics; cold water *ad libitum*, or Dr. Stevens's salines; calomel, and tartrate of antimony, alternately, in large doses; and, if all failed, croton oil.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF MEDICINE.

Meeting of Dec. 14; M. Begin in the Chair.

DISTRIBUTION OF PRIZES.

Academical prize, value £80—"On the Comparative Influence of Animal and Vegetable Diet on the Physical and Moral Constitution of Man." The prize was divided between Dr. Segond, Dr. Marchand, and M. Claval.

Portal prize, £90—"Analogies and Differences between Scrofula and Tubercular Disease." Dr. Labert. Honourable mention—Dr. Legrand.

Ward prize, £120—"Neuralgia." Dr. Valleix.

M. Dubois (of Amiens) then read the panegyric of his predecessor, M. Pariset.—The meeting adjourned at five o'clock P.M.

CONCOURS FOR THE CHAIR OF CLINICAL SURGERY, VACANT BY THE DEATH OF PROFESSOR AUG. BÉRARD.

The concours was opened on the 15th of Nov. The following gentlemen are candidates for the chair:—MM. Alequié, P. Boyer, Chassaignac, Laugier, Maisonneuve, Malgaigne, Michon, Robert, Vidal, and Sanson.

The first part of the competition consisted in a written question, for the composition of which five hours were granted. The subject was "The History of Strictures." Each paper was read in the amphitheatre, before the jury and a crowded audience. The first clinical "épreuve" was then instituted: it consists in a lecture of one hour, delivered in the amphitheatre of the faculty, immediately after examination of two patients chosen in the surgical wards of La Charité or the Hôtel Dieu, a quarter of an hour being allowed for the examination of each patient. But the public, not being admitted into the hospital during this first stage of the proceedings, remains ignorant of the correct diagnosis of the cases, and can only form an opinion of the general merits of the lectures. It also happens, on account of the short time granted for the explication of the two cases, that the candidate does not always find sufficient matter for a lecture of one hour's duration, and, to fill up the time, is compelled to make a more or less interesting disquisition on the malady, instead of a special history of the individual case. We have, further, heard very excellent lectures delivered upon an incorrect diagnosis, and reciprocally a correct and difficult diagnosis accompanying a lecture of very ordinary merits. Several candidates have already gone through this first clinical "épreuve," and, from the mere consideration of the concours itself, it is hitherto perfectly impossible to form any idea of its probable issue, although the initiated speak strongly of the predisposition of the jury in favour of one candidate.

D. M'Carthy, D.M.P.

Cholera.—A case of cholera, which terminated fatally, occurred on board the French steamer Pericles, on her passage from Smyrna to Malta; she was in consequence ordered to quit Malta, which she did on the 3rd inst.

THE MEDICAL TIMES.

SATURDAY, DECEMBER 25, 1847.

POOR-LAW CONVENTION.

The committee held its weekly meeting on Wednesday, at four o'clock, Dr. Hodgkin in the chair. Several letters were submitted to the committee, received from union surgeons, and it was announced that several contributions had been received. A considerable number of returns had been sent in to the committee in reply to the circular submitting certain queries to every union medical officer. A sub-committee, appointed to classify the returns, had met several times, and, with the assistance of Mr. Farr, agreed upon the form in which the different returns should be tabulated and prepared for further use. Much important information, placed at the service of the committee, is under the process of arrangement. The object of the committee in this respect will be much helped by poor-law medical officers losing no time in forwarding their returns. A very interesting discussion took place on the subject of a recent circular from the Sanitary Commissioners, asking from union surgeons an amount of information on professional matters requiring very much time and labour, with no promise or hope of remuneration. It was contended that the Sanitary Commissioners were bound either personally to acquire the information they required; or, if unable to do that, to employ persons to do it for them; or, thirdly, should remunerate the medical men on whose shoulders they had thrown the labour. It was finally resolved that a deputation should be appointed to wait on those gentlemen, with a view of making a representation on the subject.

The attempts at intimidation, supposed to be made by some boards of guardians, were also considered, and the result was the resolution advertised in another column. An opinion was expressed that, in the event of any petitions being sent by poor-law guardians to Parliament, in consequence of the Chesterfield circular, the medical officers of such unions should unite in a temperate counter-petition to be sent to Parliament at the same time. This plan had been acted upon in the Reigate Union at the time when some boards of guardians were petitioning Parliament against the introduction of "extras."

The committee adjourned to Wednesday, the 5th of January, 1848, when very important business will be brought before it.

"OPERATIVE" SURGERY.

With no wish to underrate the loss of Liston, we may yet state our belief, that it is not so serious an event as some have imagined. Decay and reproduction—loss and compensation—is the system of nature; and scarcely had that surgical sun set on one side, before a second luminary rose on another. If the *Times* of Dec. 17 announced the enclosure in the tomb of one "operator," the *Times* of Dec. 21 thus solaces us with the recorded advent of another:—

"[Advertisement.]—Operative Surgery.—Amputation at the shoulder-joint in a patient aged seventy-one, successfully performed under the influence of ether by Thomas Wakley, Esq., surgeon to the Royal Free Hospital. Also amputation of the arm in a man aged seventy-five, under the influence of ether, successfully performed by Thomas Wakley, Esq. Perfect reco-

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very of both patients. These cases exhibit the most extraordinary proofs of the safety and value of the use of ether vapour in operative surgery. The *Lancet* of Saturday last, Dec. 18, contains full reports of these highly interesting cases."

We fancy that here is an important discovery for which people in want of operations will be grateful. The "surgeon to the Royal Free Hospital" and his respected "governor" must have thought so too, for twice have they disinterestedly paid the *Times* a guinea for its publication, and twice in so philanthropic an aim have they submitted to have that honoured *name* included in the quack column which gives to daily notoriety Mr. Eisenberg's chiropodist operations on bishops, and Professor Holloway's miracles on gouty earls.

An advertisement appearing with such circumstances of deliberation, under such auspices, and carrying with it the imprimatur of the *magister morum* during years of the medical profession, comes before us under such a guise of scientific worth and professional authority, that it may well excuse from us more than the casual observation we ordinarily dedicate to professional advertisements of a quack or obscene character.

The document, thrown into its plain language, reads thus:—

"Liston being DEAD, and 'OPERATIVE SURGERY' being a good catchword, I, Thomas Wakley, Esquire, surgeon to the Royal Free Hospital, hereby advertise, with my father's assistance, that I *successfully* performed an amputation at the shoulder-joint, in a patient aged exactly seventy-one years, under the influence of ether.

"*Also*, I have performed an amputation of the arm in a man aged seventy-five, under the influence of ether.

"PERFECT RECOVERY OF BOTH PATIENTS!!!

"My modesty forbids my saying more of these miracles of surgical skill, save that—

"THESE CASES EXHIBIT THE MOST EXTRAORDINARY (!!) PROOFS OF THE SAFETY AND VALUE *of the use of ether vapour in operative* SURGERY!!!!

"They are

"HIGHLY INTERESTING CASES!!!

"For fuller details see the *Lancet*, the chief value of the number published a week ago being that it contains

"'These most extraordinary proofs'!!!

Without joining in the *naïve* wonder of the young gentleman (who underwent his surgical examination about a twelvemonth since) that two patients of his perfectly recovered, we may confess our admiration at the very original way in which he and his respectable father think it decorous and safe to advertise his professional performances. Let us fancy a barrister doing anything akin. Let us fancy him first inserting a full detail, in his own journal, of his doings in some obscure case, and then advertising in the public press the wonders achieved by certain "most extraordinary proofs" of his skill, referring for full details to his own book. Imagine an advertisement that "he, Mr. Nobody, of Pump-court, standing counsel to the Fudge Society, has, in the most extraordinary way, and with the most perfect success, in 'two highly interesting cases,' done all those brilliant things which made the late Sir W. Follett so much sought by clients, and the want of which is at this moment so severely felt by the public!—N.B. LARGE DAMAGES were '*perfectly recovered*' to both clients!!!"

Were a barrister to act after this useful, but rather original, fashion, his brethren would lose little time in sending him to Coventry; and his benchers, with the judges, would very early concur in the propriety of ejecting him from the confraternity.

How is it in the medical profession? Is the College of Surgeons without authority? Are the Courts Medical, of which we have heard something, to live only in hypothesis? or are we for the future to have it established as a rule of the profession that any of its members may get practice after any fashion he pleases, and that the principles of professional etiquette and gentlemanly decorum, which were supposed to distinguish the members of a liberally educated body like ours, are to be trampled under foot the first moment a sixpence may be got by doing it?

We see here, apart from the insignificance of the personal part of the question, an abuse of real and menacing magnitude; in which matters of deep professional import are at stake. The audacious innovation comes in a questionable form, and a more questionable quarter, it is true; but still in a form which has to some extent a professional character about it. To call it quackery in a very painful and debasing form is to understate the fact: to say whether it shall be tolerated, countenanced, and imitated, and become an integral part of the canon of medical practice, is beyond our power, till we see whether or not the profession, in some decided and unquestionable tone, pronounce a general and emphatic censure—a censure not less authoritative in its character than the offence of which it shall take cognizance.

CHOLERA AND QUARANTINE.

NOTWITHSTANDING the interest which has been excited in the minds of the public and of the profession, during the last few years, in reference to the cholera, it must be acknowledged that scientific investigations have done but little in advancing sound knowledge upon some most important points connected with the disease. At the present time the opinions of eminent individuals are greatly at variance, and, while this arises in some measure in consequence of difficulties inseparable from the subject, it must also be attributed to neglect, in not properly regarding the evidence given, and the observations recorded.

Cholera is a singular disease, and, though it has existed in India for centuries, it excited no particular attention till it broke out as a violent epidemic in 1817, when it seemed to acquire fresh power by which to extend its influence and to perpetuate its existence. The hope that its ravages would not be extended beyond the continent of India, or at least that they would never be experienced in the western hemisphere, proved soon to be vain: for the disease not only spread over the entire extent of Hindostan, but extended to China, appeared in Arabia, passed on through Persia and Syria, and then, bending northward, visited Georgia and Circassia; even the cold of a Russian climate was not sufficient to check its progress, though it appeared to have been produced and fostered by a tropical climate. It spread till it reached our own country, then passed across the Atlantic to the American continent and islands, and from thence it turned back towards Europe, visiting Spain, France, Rome, Sicily, some parts of Germany, and, finally, the banks of the Thames, where, according to Dr. Budd and Mr. Busk, the last victim was selected on board the Dreadnought Hospital Ship.

We noticed in a former article the peculiar behaviour which it manifested—how it passed the most lofty mountains, crossed oceans, traversed deserts, and bid defiance to all military cordons and quarantine establishments. This was the case with the epidemic which appeared on our shores in 1832. Since then Europe has been occasionally visited at intervals of some three or four years; and it has been noticed that at each return of the disease it had lost much of its severity, with, perhaps, but one exception—at Berlin, where it proved more fatal in 1837, though it continued for a shorter period than it did in 1830.

There is some degree of uncertainty when the epidemic which now threatens us began its course westward. It is a remarkable fact, however, that at the time it appeared at Teheran, after having been quiescent during the winter of 1845 and 1846, Kurrachee, near the north of the Indus, was visited in a most fearful manner by the pestilence, for in the course of a few days 8000 victims were destroyed. We observe here a great similarity to what occurred in the camp of the Marquis of Hastings in 1817, not long after the first outbreak of the great epidemic in the Delta of the Ganges; and the natural inference is, that a certain state of the atmosphere must have been the cause in each instance. The disease took a S.W. and a N.W. direction; not, however, always following the great lines of human traffic, but appearing at places far distant from the spot where it had been chiefly prevailing, then turning back upon towns and villages which had been spared for a time. It has been noticed by writers who have had opportunities of studying the history and progress of cholera, that it is often preceded and accompanied by dysentery, diarrhœa, or fever of a typhoid kind. Dr. Searle has recently published a work, in which he states the opinion, that these diseases frequently arise from one source, and are but modifications of each other. "In ordinary circumstances," he says, "the disease occurs under the united influence of heat and malaria, followed by the conspiring one of cold, or other concomitant circumstances — diarrhœa being its mildest and more prevalent form. Dysentery is another variety and the congestive typhus of Armstrong another—the latter being intrinsically the same disease, modified by climate and form, in which, perhaps, in its severest degree, it more frequently manifests itself in this country." Thus it happened in Persia: for some time before the outbreak of the cholera, dysentery, diarrhœa, and fever prevailed to a very great extent.

It is not for us here to enter into a particular account of the progress of the present epidemic, as the profession has from time to time been informed upon the subject; up to the present moment it has been steadily advancing through Europe; and the question, therefore, naturally arises, In what manner is it conveyed from one place to another? Dr. Copland and some others are firm believers in the doctrine of contagion—so much as to deny that cholera ever entered a place which had not held intercourse with another infected. Mr. Orton, however, who is of this number, says, "After examining into the evidence, we are forced to the conclusion, however at variance with the common laws of contagion, that in this disease, at least in India, the most intimate intercourse with the sick is not in general productive of more infection than the average quantity throughout the community." The majority of writers, by far, both Indian and European, are

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opposed to the doctrine of infection or contagion. Dr. Searle, who had considerable opportunities of studying the disease, having been in India for twenty years, and having been at Warsaw during the prevalence of the disease there, as well as having visited many cholera hospitals of Germany, says, upon the question whether cholera is infectious or not, "I can speak decidedly that it is not so;" and cites in confirmation of his views the freedom of the attendants at the hospital from disease; the experiments of the French physicians sent by their Government to investigate the malady; and the circumstance of its attacking in India men occupying the lower floor of a barrack, while those of the upper floor escaped—of its affecting the men sleeping on one side of a ship's deck, in the roads off Madras only, or one portion of a cantonment, or the inhabitants of one bank of a river, exclusively. The French commissioners referred to express themselves more opposed to contagion than in favour of it.

The majority of medical men attribute the production and propagation of this terrible disease to certain conditions of the atmosphere acting upon individuals previously disposed to disease by some peculiar state of the constitution. Dr. A. M. Bureaud Riofrey, in a work just published, entitled "Du Choléra," &c., has this remark:—"L'atmosphère contient dans son sein des millions de germes, ces germes se développent lorsqu'ils trouvent un terrain qui convient à leur nature, le germe cholérique existant, flotte imperceptible dans l'atmosphère et ne s'implante que sur les *constitutions débilitées*, sur celles chez lesquelles le pouvoir vital ou de réaction est affaibli." Dr. Gavin Milroy, in a pamphlet containing some excellent remarks on the cholera, observes:—"Another circumstance, utterly incompatible with the idea of infection playing the chief part in the diffusion of the cholera, is the sudden seizure of hundreds of persons in a place on one and the same day. How can any one seek to reconcile such an occurrence with the notion of the disease being communicated from one person to another, and of its proceeding, as it were, step by step, until it has overspread a space of several miles in circumference within twenty-four or thirty-six hours? Yet this most improbable opinion has actually been held and stoutly maintained, in connection, too, with the present argument, and as affording irrefragable evidence of there being a malarious condition of the atmosphere during the existence of epidemic cholera in a place. It may also be mentioned that almost all the inhabitants of a town or district often experience its morbific effects in some degree or another; just as we know to be so generally the case during the presence of influenza: very few persons escape it altogether. In the one instance there is a marked tendency to irritability of stomach, and to relaxation of the bowels, or to crampy twitchings in different parts of the body, these symptoms being especially apt to supervene upon any impropriety of diet; while, in the other, slight catarrh, headache, unusual lassitude and general debility, are pretty sure signs of the person having come within the influence of the miasmatic agency, whose power is always aggravated not a little by exposure to whatever is liable to produce common catarrh. Other diseases, too, which may happen to prevail in a place at the same time, very generally exhibit something of the character or impress of the predominant epidemic." Mr. Campbell, assistant-surgeon of the Horse Artillery, who had considerable opportunities of studying the disease, speaks very decidedly on this point—"That this disease is not infectious, but is caused by the direct application to the surface of a peculiar miasma, existing in particular strata of the atmosphere, has been fully proved by the history of its progress, as well as by the phenomena attending it."

The little good effected by quarantine and other preventive measures of a like nature go far to establish the doctrine that the principal sources of the disease exist in the atmosphere. The Russian Government in 1831 relinquished quarantine establishments, having found them utterly inadequate to effect the desired end. The Emperor of Austria acknowledged that he had committed an error in adopting what he denominated the vexatious and worse than useless cordon regulations against cholera. The Government of the United States of America, after having tried the effects of quarantine, abandoned it, some of the principal medical men of the republic having declared its inutility. In India, the only instance in which quarantines were tried, they failed. In Mahomedan countries, where harems are strictly and rigidly guarded, the inmates, in many instances, succumbed to the disease; and we are informed, upon the authority of Clot Bey, that 500 Arabs, encamped in the desert and preserving a strict seclusion, did not escape. Hence we perfectly agree with the Registrar-General when he says that "Internal regulations, and not quarantine and sanitary laws, are the safeguards of nations; and that a salubrious city in an epidemic, like a city built of stone in a conflagration, is exposed to danger and injury, but not to the same extent as the present cities of Europe, which are left without any adequate regulations for the health and security of their inhabitants."

Although quarantines and military cordons are but of doubtful utility, there are yet means within our power to arrest or mitigate the horrible Asiatic pestilence: not disinfectants, which can destroy the most filthy odours; not fumigations with the most energetic gases; but sanitary improvements in all our cities, towns, and villages. Streets, if narrow, let them be widened; sewers, if ill constructed, let them be renovated; dwellings. if badly ventilated, let them be freely supplied with air; water, if deficient, let there be a good supply; crowded burying-places, if in the midst of a dense population, let them be removed. These things, combined with a personal attention to health, will as effectually keep the cholera from our shores as the visitations of the plague to this metropolis have been stopped by the improvements made since the conflagration of 1688.

CORONERS AND MEDICAL WITNESSES. A FRIEND IN COURT.

A FORTNIGHT ago we directed the attention of our readers to the case of Mr. Synnot, surgeon, of Cadogan-place, who, on being summoned by Mr. Mills, the deputy-coroner for Middlesex, to attend an inquest held upon the body of a child, was refused the usual fee which the law grants to medical witnesses. The excuse made for not allowing the full sum to be paid was, that Mr. Synnot, being summoned only as an ORDINARY WITNESS, he was not entitled to professional remuneration. This gentleman, considering that he had been unjustly treated, summoned Mr. Mills for the amount, in the Bloomsbury County Court. The case was heard a short time ago, and the judge distinctly stated that the surgeon was entitled to the full sum allowed by the Medical Witnesses Act, though from a technical blunder he would be unable to recover it in that court, the action having been brought in "tort," as though a contract existed. As, however, the fee could be obtained by procuring a *mandamus*, the judge advised Mr. Mills to take the case in his own hands and pay the money. The hint was not lost on the deputy-coroner, who paid over to Mr. Synnot forthwith the full sum of £1. 1s.

This is a most important decision on behalf of the members of the medical profession, who are liable to be summoned before coroners' courts; and great praise is due to Mr. Synnot for the perseverance which he displayed, not only in asserting his own rights, but those of his professional brethren. Had the decision been in favour of the coroner it would have subjected medical men to many acts of oppression, there being but few who understand the nice distinction between an *ordinary* and an *extraordinary* summons; and coroners might in numerous instances have found means of easing the county rates, by procuring the service of medical witnesses for a mere trifle.

The conduct of Mr. Mills on this occasion was truly reprehensible, as he sent to a surgeon, acquainted with the cause of death, a summons which was supposed would free the coroner from the obligation of paying what an act of Parliament had distinctly authorized him to do. His opposition, we are told, was on the ground that Mr. Synnot had thrust himself forward as a witness, having, prior to the assembling of the jury, by permission of the friends of the deceased, opened the body and carried away those portions which alone could explain the cause of death. This he had a perfect right to do, as there was no authority to forbid him at the time he instituted the *post-mortem* examination. It is true the constable wished to make his word equally powerful with a declaration of law, and, because Mr. Synnot bowed to no such authority, Mr. Mills endeavoured to punish him by docking him of his fee. It is remarkable with what ease the Medical Witnesses Act is taken up and laid aside, to suit the views of the coroner: its provisons being respected when it allows him the power of refusing the guinea for an examination of the body, but set at nought when it commands him to pay a certain sum for *medical evidence*. As the opinions of the judge are of importance to the members of the medical profession, we transcribe them at length for their information. He said:—

"Mr. Mills's opposition was on the ground that the surgeon had thrust himself forward as a witness, having, prior to the assembling of the jury, by permission of the friends of the deceased, opened the body and carried away those portions which alone could explain the cause of death. The 6th and 7th of Will. IV. enacted that witnesses should be paid by the coroner under certain circumstances, and he contended that the plaintiff made a claim under circumstances not legal. The judge observed that the act of Victoria I., chap. 68, sec. 2, totally repealed the one defendant had referred to, as it expressly stated that, immediately an inquest terminated, all witnesses and other incidental expenses shall be paid by the coroner, who will be reimbursed by the justices at quarter sessions, the different sums allowed being stated therein, among which was medical fee, £1. 1s. Only the last Trinity Term, Lord Denman had tried a case heard on a *mandamus* against the justices of Caernarvon, who refused to allow a coroner for a medical witness, but whom, by

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the decision of his lordship, they would be compelled to pay. In fact, according to the act he quoted, they had no discretion in the matter, and he was of opinion that it was of no consequence which summons a medical man received, for if even he was in a room, and should unexpectedly be called upon to give evidence, he could substantiate his demand. It would be a very bad precedent to confirm the non-payment of a medical man summoned as a witness, and great difficulty would by so doing arise in getting such witnesses to attend inquests."

In consequence of this decision, medical men may now indulge in no fears as regards the relation of a summons to a fee: for whenever called upon to give evidence, in coroners courts, upon the cause of death, or to answer questions which involve medical knowledge, they are clearly entitled to the sum specified in the act, whatever the form of summons—be it *ordinary*, *medical*, or *verbal*.

FREE HOSPITAL QUACKERY.

[To the Editor of the Medical Times.]

SIR,—I beg earnestly and respectfully to direct your readers' attention to the following advertisement, which appears in the *Times* of to-day. I understand it also appeared in the *Times* of Tuesday last; and, considering that the *Lancet* was published on Saturday, there can be no doubt that the outrage is committed very thoughtfully and deliberately, and with a careful calculation of results:—

"OPERATIVE SURGERY.—Amputation at the shoulder-joint in a patient, aged 71, successfully performed under the influence of ether by Thomas Wakley, Esq., surgeon to the Royal Free Hospital; also amputation of the arm in a man, aged 75, under the influence of ether, successfully performed by Thomas Wakley, Esq.: perfect recovery of both patients. These cases exhibit the most extraordinary proofs of the safety and value of the use of ether vapour in operative surgery. The *Lancet* of Saturday last, Dec. 18, contains full reports of these highly interesting cases. Order of any bookseller in town or country."

Now, Sir, I have often felt dissatisfied with the quackish character of the *Lancet* advertisements, and now and then at the quackish way in which it purveys to the ignorance of the general readers—and my disgust was not a long while ago much excited by its mode of advertising for "*venereal*" readers—but these are small matters compared with such an advertisement as the one above! Everybody knows how the young man was bullied into the very extraordinary concern called an hospital, in Gray's-Inn-lane; and nobody much cares, considering its insignificance of twenty beds, who is, or is not, its surgeon. But I do think that the prostitution of a professional institution, and a professional journal, to the purposes of so painful a perpetration of quackery requires a very indignant expression of censure from every honest, right-thinking member of the profession. How can we have a profession—how be gentlemen—how exercise control over the unprincipled and the base—if such bold quackeries, so sanctioned and so authorized, are allowed to have a free and profitable currency?

Is there no *efficient* mode of teaching the person Wakley that the profession will not bear with impunity so daring an outrage on its respectability and honour?

The College of Surgeons is at once bound to see to this flagrant infraction of their by-laws; and every *gentleman* should hasten to record his protest against a precedent of fatal application.

I am, Sir, your obedient servant,

London, Dec. 23. AN OLD PRACTITIONER.

DR. BURROWS.

[To the Editor of the Medical Times.]

SIR,—I am gratified at the report in your journal of this day, that the worthy (? worthy the honour) representative of Finsbury has been seized with a sudden qualm, and that he is disposed to unburden his conscience and atone, so far as he can, for his numerous delinquencies by offering to those against whom he has sinned the most "abject apologies," expressive of the deepest contrition and the most sincere regret that his reckless pursuit of popularity and self-gratulation had betrayed him into the most unjustifiable falsehoods and the most wanton abuse. Repentance is the first step to mercy and forgiveness; and the first batch, exclusive of the late matter in the House of Commons, thus implored and propitiated, have been Doctors Dawson, Culverwell, and some others. It is to be hoped the same penitent will endeavour, by similar acts of contrition, to make his peace with Paris, Hawkins, Burrows, &c. By the by, in reference to Dr. Burrows, something is due to justice and the outraged majesty of the law. How stands the case? The proprietor of the *Lancet* proposes to Parliament a registration bill, the effect of which would be to reduce the medical profession to the lowest ebb; by which all those persons who, before entering into practice, preferred attaining that maturity of age and judgment which would render them callous to, and proof against, the bullying, swaggering, and abuse of a "most corrupt, licentious, and scurrilous journal," would be driven from its ranks. By this means the profession would be entirely at its mercy, and "led by the nose" as best suited its purpose. As a preliminary to these laudable views, a committee was moved for and granted. The mover or promoter was not appointed a member, but, notwithstanding, most indelicately intruded—nay, became a sort of special pleader, to cross-examine the witnesses and extort evidence for future purposes. This was partly the case with Dr. Burrows. This gentleman's evidence was not only published, but, as he asserts, grossly distorted and perverted. These misrepresentations were intended to subject him to the greatest obloquy. He was held forth in terms of the most unjustifiable and unfounded comments, and subjected to every kind of abuse.

Dr. Burrows was summoned to give evidence before a committee of the House of Commons, a constitutional tribunal, and empowered to enforce the truth. Let us suppose him, awed by the majesty of journalism, consulting, not the truth, or at least not the honest dictates of his own conviction, but the whims and objects, however extravagant, of the imperious overseer. In what estimation would such evidence be held—what the consequences to the witness—were such unwarrantable dereliction brought home to him? Dr. Burrows was, legally as well as morally, bound to speak the truth, and criminally responsible for any evasion or deviation from the dictates of his own moral convictions, however unpalatable the truth might prove to others. No one can know better than the Hon. M.P. for Finsbury the nature of the oath propounded to a witness—"The evidence, &c., shall be the truth, the whole truth, and nothing but the truth." If a witness then give false evidence, independent of the moral stigma, the law has attached a severe penalty.

It may be useful to the coroner for Middlesex to be informed that truth—the *verum*—is twofold, logical and ethical: the former when the judgment of the mind is in accordance with actual fact; in the latter the moral conviction is at variance with the real truth. Consequently the same proposition might be logically true and ethically false, and what might be a moral perjury in the Finsbury M.P. may be with Dr. Burrows a legal truth.

But a witness before a parliamentary committee is, it would seem, in rather an awkward predicament: if he give false evidence the law will punish him for perjury; but if he speak the truth he is liable to be denounced, somewhat like an Irish landlord, by some high priest of parliamentary "thuggism."

It may be matter for deliberate consideration whether these denunciations, or rather immolations, upon the unhallowed altars of wanton and perverted criticism be not aggravated violations of the law. There can be no doubt, I apprehend, but that a court of law—the Queen's Bench, for instance—would upon application protect a witness from unjust aspersions or corrupt animadversions, despite, too, of even the high sanction and authority of the "junior," who is as yet about to teach the "senior" or "chief" coroner of England the law—at least "crowner's quest law." I believe, then, if Dr. Burrow's evidence had been before the Queen's Bench, that court would not have refused a rule for a criminal information against the author of unfounded aspersions upon him for speaking as a witness what he believed the truth. How far the Queen's Bench would feel disposed to interfere in the case of a witness in similar circumstances before a parliamentary committee, is a question upon which I will not enter. But, be this as it may, there is another tribunal which, in justice to itself, and in vindication of its own privileges, ought seriously to take up the matter. This tribunal is the House of Commons itself. The publishing of any of the proceedings within the House (and this, no doubt, extends to committees), unless by its own accredited agent, is in itself a breach of privilege, and punishable as such. If a new committee is, or has been, appointed, unless the House do something to protect the evidence from malevolent misrepresentation and unjust and abusive comment, it is to be hoped that the first witness called upon will direct attention to the awkward predicament in which he feels himself placed, and respectfully decline giving evidence unless assured of special protection from the clumsy thrusts of a bungling operator with a foul and venomous instrument.

I am, Sir, your obedient servant.

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P.S.—It certainly behoves Dr. Burrows and the College of Physicians to bring this matter before either the Queen's Bench or the House of Commons. The system of intimidating witnesses from corrupt motives and for base purposes should be put down. In case of the bill passing, who would be the registrar-general, and what the salary? The "cormorant"—"I thank thee, Jew"—would ope "his ponderous and marble jaws," not "to cast up again," but to gorge the emoluments and patronage of an additional place. Hence this "still harping on" the "Registration Bill."

[To the Editor of the Medical Times.]

"Crescit indulgens sibi dirus hydrops,
Nec sitim pellit, nisi *causa* morbi
Fugerit venis, et aqueus albo corpora languor."
HORATII *Carm.*, lib. ii., carm. 2.

MR. EDITOR,—As an original subscriber to your most admirable periodical, I trust I shall be pardoned if I trespass upon your courtesy by requesting a small space in your next number for the following remarks relative to the present movement in poor-law medical affairs.

I have been an attentive observer of the proceedings of the Poor-law Medical Convention, and have carefully read and studied the correspondence (as published in your journal) which preceded the formation of that society, and still accompanies its proceedings. I take a deep interest in the present movement, and therefore hope that both you, Mr. Editor, and my professional brethren will excuse me when I state that I differ, *toto cœlo*, both from your opinion and theirs. I have now before me the circular issued by the committee of the Convention; in my reply to it I have stated, and I here reiterate it to be my firm persuasion, that the Convention has begun at the wrong end in calling upon Government to do for us that which we are perfectly capable of doing and ought to do for ourselves. Our own jealousies, our own rivalries, and want of good feeling towards each other, constitute the *fons et origo mali*, with which Government has about as much to do as the Goodwin Sands with Tenterden Steeple. We may drink for ever and not quench our thirst unless the pestilent cause of the disease be driven from our veins. No profession besides the medical works for nothing; in no other profession is there such a total lack of *esprit du corps*, in no other profession is there such illiberal, dishonourable, and disgraceful competition, as unfortunately taints ours. Are boards of guardians, then, to be blamed if to save the ratepayers' money they take advantage of this state of things? In a moral sense they may be amenable to censure, but, politically, they are right. In these days of free trade the golden axiom appears to be, "Buy at the cheapest market;" and, if the market price of medical labour and skill be low, assuredly we have no right to expect a protecting duty from a free-trade Government, nor to anticipate that the buyer will exert his energies to raise the price of the vender's goods. But, perhaps, I may be told that trade, commerce, and merchandise are totally different things from a profession, and not to be governed by the same laws; I may be told that a quantity of wheat, and the skill of a scientific surgeon, should not be measured in the same peck; I may be told that the man who contracts with a board to supply a given quantity of Manchester fustian, and the gentleman who undertakes the fearful responsibility of attending the sick in a population of ten thousand souls, ought not to be classified together. "*Hæc non sunt inter se comparanda.*" All this may be objected to me, and, in

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sooth, I should agree with the objector, yet still we know that this is the case; and here comes the knotty point, how is a state of things admitted on all hands to be radically wrong—how is this state of things to be set right?

Permit me, Mr. Editor, through you to ask my brother practitioners, especially my brethren in *union* practice, the following questions:—If a tradesman be bidden by a customer less for an article than its prime cost, what does he do? If a schoolmaster be requested to receive a boy into his boarding-school for less money than the boy's food will cost, what does *he* do? If a barrister be desired to plead for a less fee than a guinea, what does *he* do? I believe the replies are obvious; and if the same practice were put in force in medicine, as would inevitably be adopted in the above cases, then Mr. Garlick would have no cause to complain that he was a positive loser by his Halifax contract. Here, then, is the remedy. Let every member of the Convention pledge himself to his brother members, let every member of the profession pledge himself to his brethren, not to undertake poor-law practice at its present disgraceful price. Let us not trouble the Government (which has now a vast deal more on its hands than it can well manage) about our affairs, but let us ourselves adjust them. The public, I mean the board of guardians public, chooses to classify us with tradesmen; well, be it so, but then let us take advantage of this classification. The ironmasters at their quarterly meetings settle the price of iron, and no ironmaster is ever known to undersell his brother ironmaster. Let, then, a medical convention at its meetings settle the price of medical skill, labour, and anxiety. Let all be invited, entreated, urgently pressed to join this Convention, and although there may be a mean, dirty, black sheep here and there, yet do I firmly believe that not only the majority but the great mass of the profession would respond to the call. Let a day be fixed on which every poor-law medical officer shall engage to throw up his district, and every medical practitioner in the kingdom engage not to accept it at any other than the salary fixed by the Convention. Away with the trumpery nonsense about strikes for wages, such a step would not be a strike for wages. Surgeons, physicians, apothecaries of England! if you imagine this, you have misunderstood your vocation. He who labours for his employer, that employer gaining a profit on his servant's labour in conjunction with his own capital, is in a totally different position from the medical practitioner, whose labour is not combined with any man's capital, neither does any man besides himself gain a money profit by it. The fact is, that really the medical man's capital, his stock-in-trade, is his skill, and he individually or collectively has as much right to fix the price at which he will sell it as a draper has individually to fix a price on his calicoes, or the ironmasters collectively to determine the selling price of their iron.

Sir, it is notorious that English governments have always neglected, despised, abused, ill treated, and hated our profession: need I point to their abandonment or destruction of all bills which have been introduced for its improvement? Need I point to the low position which medicine occupies in the army and navy? Need I point to their throttling of the Apothecaries' Act of 1815? Need I point to the recent disgraceful charter of the College of Surgeons, which attempts to exalt the few by depressing the many? Where is the name, where the honour, where the station, where the rank, where the emolument which any English Government has ever awarded to any medical man? Where, I ask? and Echo answers, where?

Let us, then, expect nothing from the Government, but be true to ourselves.

"Hereditary bondsmen, know ye not
Who would be free themselves must strike the blow."

I have the honour to be, Mr. Editor, your faithful and obliged servant,

CHAS. BRADDON,
Medical Officer in the Upton-on-Severn Union.
Upton-on-Severn, Dec. 2.

EARLY STRUGGLES OF SANITARY REFORM; OR, PURSUIT OF PUBLIC HEALTH UNDER DIFFICULTIES.

[To the Editor of the Medical Times.]

SIR,—I think you will agree with me that the following extract from Sir John Barrow's "Travels in China" is not without interest at the present juncture.

After describing the process of economising and applying liquid manure (as alluded to by your correspondent, Mr. Thomas, in one of your recent numbers), and telling us, that as a consequence of this practice, and from the want of drainage in the large and densely populated cities of the Celestial Empire, "a disgusting odour remains about the houses all day long, from the fermentation of the heterogeneous mixtures kept above ground," the learned traveller proceeds as follows:—

"The medical gentlemen of China are not quite so ingenious as we are told the faculty in Madrid were about the middle of the last century, when the inhabitants were directed, by royal proclamation, to build proper places of retirement to their houses, instead of emptying their nocturnal machines out of the windows into the streets. The inhabitants took it into their heads to consider this order as a great affront, and a direct violation of the rights of man; but the doctors were the most strenuous opposers of the measure, having, no doubt, cogent reasons for wishing the continuance of the practice. They assured the inhabitants that if human excrement was no longer to be accumulated in the streets, to attract the putrescent particles floating in the air," ("There is nothing new under the sun!" what is this but the science of homœopathy applied to public hygiene?), "they would find their way into the human body, and a pestilential sickness would be the inevitable consequence."—"Travels in China," page 99.

Where the worthy baronet got hold of this choice *morceau* about the faculty of Madrid I do not know, but I think you will agree with me that the story is too good to be lost.

I am, Sir, your obedient servant,
Dec. 18. ECHO VERITATIS.

THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

[To the Editor of the Medical Times.]

MR. EDITOR,—In running my eye over your "answers to correspondents" just now, I caught sight of one to which, I trust, I shall be authority enough to cause you to give the broadest qualification in your next number. This one relates to the Faculty of Physicians and Surgeons of Glasgow. During the last summer I visited Glasgow, and amongst its institutions the one in question. I am not sure that I did not at first find myself on the banks of the Clyde with a little prejudice in my mind not altogether in favour of the good old city, for, say as we may, we English have a good dash of the bigot in our constitutions, and a wonderful faculty for retaining early impressions, however vaguely formed. Here, however, my national weakness soon sustained a grateful inflexion, that is to say, became one—if it is proper so to speak—on the other side. It would be presumptuous in me to dilate upon the merits of the instructive or licensing corporations, but it is a simple act of justice to as high-principled and worthy gentlemen as it has ever been my good fortune to meet, to declare my thorough conviction as much of the learning of one set of institutions as of the honour of the other; and an instance fully testing the latter came under my own immediate observation in connection with the Faculty of Physicians and Surgeons. It may be, as you say, that the latter institution "does not stand high as a licensing professional body," but, foppery apart, there may be a place or two nearer home that need not blush to find it put upon equality.

Mr. Editor, your obedient servant,
WILLIAM HENRY BROWN, M.D., F.L.S.
Belgrave-house, Dec. 18.

GERMAN HOSPITAL, DALSTON.

[FROM A CORRESPONDENT.]

We have refrained from alluding to the late differences in connection with this institution until we were in possession of correct information on the subject, and we do so now the more readily, as we consider the course pursued by Dr. Freund to have been highly proper and praiseworthy. The facts of the case are simply these:—Dr. Freund, the directing physician of the hospital, having repeatedly requested, in committee and in his Annual Medical Report, dated Oct. 15, 1846, "that proper and efficient accommodation might be provided for seeing the out-patients, to no purpose, notwithstanding the medical officers had, at the request of the committee, met specially at the hospital, towards the end of July last, to report as to the necessary alterations, at length determined that the patients' comfort should no longer be sacrificed by the negligence and delay of the committee. Therefore, on Tuesday, the 21st Sept., finding the patients exposed to the wind and violent rain—for they had no other waiting-room than the very small one (about 5 or 6 ft. wide by 15 or 16 long) devoted to their examination—I then resolved on seeing them in the board-room, where the patients would be more comfortable, and the violation of decorum, hitherto inevitable, avoided." This gave great offence to one or two members of the committee, and when Dr. Freund was about to enter the room on the following Saturday, he was told by the assistant secretary, in the presence of some of the paid servants of the institution, that he had been instructed by the visiting committee (which we find has no existence) "to lock the door, and forbid his entering the room." Of course, as the only responsible officer of the hospital, Dr. Freund was much irritated at so gross an insult, and said, that any one who could give such instructions must be a most ungentlemanly and impudent fellow. Mr. Phillipps, a member of the committee, who, it appears, exercises an unwarrantable authority in the management of the affairs of the institution, shortly afterwards made his appearance, and Dr. Freund immediately asked him for an explanation; but he declined giving any answer until the doctor repeated his opinion of the conduct that had been pursued against him; when he at once said, that he "had done it, that he was master of the house, and that he would kick the doctor's nose and wring it." Dr. Freund naturally became much exasperated at this, and told him that he was an impertinent fellow, and that if he repeated such language he would turn him out of the hospital. A few members of the committee met on the following Tuesday at the hospital, and immediately suspended Dr. Freund, declaring him unfit for the office of directing physician, and this without giving him an opportunity of refuting the charges that had been brought against him by Mr. Phillipps, although he was on duty at the hospital that very day.

On receiving a copy of this resolution, which was signed by the Rev. Dr. Kuper, as chairman, Dr. Freund wrote to this gentleman, and requested that an apology might be made to him, and that the resolution thus hastily passed might be withdrawn, at the same time stating that he should still continue to discharge his duties at the hospital. No attention was paid to this letter. Dr. Freund, therefore, notwithstanding his suspension, which, according to the rules of the hospital, appears to have been illegal, went to the hospital as usual on the following Saturday, but was again insulted by being told by the house-surgeon that he had orders to prevent his seeing the patients, and to give instructions to the dispenser, the nurses, and the porter, not to obey him. There was also a deputation of the committee, consisting of Messrs. D. H. Gardeches, A. Fisher, and Wm. Kuper, at the hospital to prevent his entering the wards. A general meeting of the governors was afterwards called for Oct. 14, to decide on his retention or dismissal, which at once refused to sanction the conduct of the committee, whereupon the Rev. Dr. Kuper tendered in their resignation, and they, with the illustrious chairman, the Duke of Cambridge, left the room. Mr. Alderman Sidney, M.P., one of the vice-presidents, remained behind, and was called to the chair, when a resolution was passed unanimously reinstating Dr. Freund in his office. This, however, was of no avail, for so inveterate was the feeling of some few members of the committee, that, when the doctor again presented himself at the hospital on the following Saturday, Mr. Preller, the sub-treasurer, met him, and said he protested against his seeing the patients, "in the name of the committee and in his own name, as owner of the house." Dr. Freund immediately presented a written document with which he had provided himself, signed by Mr. Alderman Sidney, proving his reinstatement, but Mr. Preller refused to acknowledge it. Dr. Freund

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therefore left the hospital. The ex-committee then actually called another general meeting for the 28th Oct., to appoint a court of inquiry—a course previously proposed by Dr. Freund to the deputation above alluded to, but not agreed to by them—to investigate the validity of the statement made in their report read at the last meeting, and actually printed and distributed among the governors before the meeting took place. The court of inquiry was appointed, of Lord Ashley, M.P., Sir R. H. Inglis, M.P., B. B. Cabbell, Esq., M.P., Chevalier Hebeler (Prussian consul), and Samuel Gurney, Esq., jun., on the part of the ex-committee; and Alderman Sidney, M.P., J. W. Oppenheim, Esq., J. Brown, Esq., J. W. Moule, Esq., and J. Stohwasser, Esq.: these ten to choose an eleventh.

This court of inquiry met at the London Tavern on the 17th of November, and, after investigating the matter, came to the unanimous conclusion that—"the conversation and conduct of Dr. Freund took place when he was in a state of great excitement, and that such excitement was in part produced by his having received, at the moment of his arrival at the hospital; a *viva voce* intimation that he was not to occupy, for the purposes of his duties in the hospital, a room which he had claimed as a temporary accommodation for him in the discharge thereof, while such intimation is, nevertheless, alleged to have been the act of the committee of visitors, held two days before—viz., on the 23rd September—the omission of a written and immediate notice of such intimation to Dr. Freund, directing physician of the hospital, being likely to be specially painful to him, who had, from the commencement of the institution, rendered great and gratuitous services in aid of its foundation and maintenance. (Signed) Ashley, Chairman."

A third meeting of the governors was called for the 27th of November, to receive this report, when, strange to say, Mr. Galdecheus commenced by asking Dr. Freund "if he meant to resign or not?" To this the doctor repled "No," and further stated that two days before he had been sent for by Mr. Alderman Sidney, who informed him that Chevalier Hebeler had called on him (Alderman Sidney), on the part of his Excellency Chevalier Bunsen, and offered him handsome testimonials, and something still more substantial, if he would resign. The doctor declined accepting such paltry, mean offers, as he considered he would be degrading himself and the profession to which he belongs if he did so.

This meeting ended in a resolution being put and carried, to the effect that "Dr. Freund's usefulness to the hospital since its foundation, his unremitting attention to the duties of directing physician, entitle him to the continued confidence of the governors of the institution."

Thus has terminated a most unfortunate and, so far as the committee are concerned, disgraceful affair. Dr. Freund, we think, has done great service to the profession: he has taught a lesson that ought not to be forgotten, that, if medical men wish to be respected by the public and by public bodies, they must first show that they respect themselves, and that they belong to a profession the honour and dignity of which it is their duty to uphold.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Sir Benjamin Collins Brodie, Bart., F.R.S., Examined.)

(Continued from page 186.)

The Registration Bill.—A system of registration of all medical practitioners throughout England and Wales I think would be a very good thing; it would be popular with the profession, and rather useful for the public. I have looked at the scheme of registration contemplated by the bill of this session. I do not think that any proper registration of the existing practitioners under that bill could be carried into effect. Under what is there proposed, persons would be registered who ought not to be registered, and persons would not be registered who ought to be registered. Thus it allows any persons to be registered who have degrees or licences from any constituted bodies. I believe that most persons in the profession think that a person who has a licence from the Faculty of Physicians and Surgeons in Glasgow ought not to be registered as qualified to practise over the whole kingdom. Then, again, the University of St. Andrew's, even now, and the University of Abedeen till very lately, have been in the habit of granting degrees upon mere examination; nay, within a very short space of time they were sold, without the candidates even appearing at the University. Many of those degrees have been granted to persons quite unqualified to practise. Dr. ——, a quack doctor, had a degree from St. Andrew's or Aberdeen; and I have no doubt that even now there are many persons having those degrees in this country, and who would be registered under this bill, but who would not be at all fit to be registered. On the other hand, some of the best surgeons in the country, practising in the provinces, are not members of the College of Surgeons. There are two gentlemen in the Bristol Hospital; they are consulted by everybody, and they are very eminent surgeons, but they would be left out from this register. There are also a great many persons practising as surgeon-apothecaries, and who are eminent practitioners, in different parts of the country; I have met with many such myself, who have not a licence from Apothecaries' Hall; who, from some technical difficulty, cannot get that licence, but who are adopted by the public, and are popular in the respective districts in which they reside, and well qualified to practise; those gentlemen would be left out. The Apothecaries' Company do not venture to prosecute them, but still they would be left out of the register. It appears to me that no system of registration can be at all just or proper in the first instance, unless those to whom the registration is confided have certain discretionary powers granted to them. In considering the medical bills introduced by the Secretary of State three or four years ago, this difficulty presented itself, and there it was intended to confide the registration to the Council of Health, composed of several persons, some in the profession and some out of it; but under the present bill, if there be any discretion at all, it must be given to a single person in each country, and it would be too great a power to give to any individual. It would have involved the Council of Health in a good deal of trouble, for they would have been accused inevitably of partiality and prejudice on many occasions, however just they might have been; but the clamour against individuals to whom such a power was confided would be such that no individual could stand against it. A register, including the different classes of the profession as now subdivided, and also embracing an alphabetical list, with the grade in the profession appended to each name, in addition to the residence, under competent responsible authority, I think would be very useful.

Control of the Secretary of State.—The register contemplated in this bill is in conjunction with a licensing power in different parts of the United Kingdom, controlled by the Secretary of State, with inspectors under his authority in each part of the United Kingdom. I think no Secretary of State could be competent to undertake such a duty; he must be assisted by other persons. The schemes of education of the different licensing bodies are to be submitted to the Queen in Council; but the difference is only in words; it would, I imagine, be, in fact, submitted to the Secretary of State or the President of the Council; but taking the President of the Council and the Secretary of State together, if they alone are to be the controlling authority, that would not appear to me to be satisfactory. I think it would be impossible for any but medical men, and those acquainted with the details of medical education, to form a correct judgment on the subject. I have referred to the bills which Sir James Graham introduced in 1845, in all of which a council of health was contemplated; the institution of such a body on the part of the State I think would be very useful in various ways. I think that council should be composed of a certain number of persons in different branches of the profession, and certain other persons not belonging to the profession, persons of influence in the world; and I think the whole of them should be appointed by the Crown. If so composed that the supreme control over the curricula of the different licensing bodies, by means of assessors, with a view to ascertain that the standard was strictly and equally observed by all, it might and would be desirable that it should be intrusted to that body. In addition to those high functions, I think that that would be very useful; and it would ensure certain persons paying great attention to questions which now very much interest the public, that the Council of Health be consulted, being at the seat of Government, upon sanitary questions, and matters affecting the health of the public. I think the establishment of a single registrar for each kingdom is a very great defect; and that the establishment of the Council of Health for the whole kingdom would be an excellent measure. I am not quite certain that, with regard to equality of right to practise in every part of the United Kingdom, I rightly understand the bill; but it appears to me that the person who has passed his examination at Apothecaries' Hall is capable of filling any situation whatever, either of apothecary, physician, or surgeon—so it seems to me, but it may not be so intended.

Reciprocity of Privilege.—I think care should be taken in this way, that those educated in Scotland should be as well educated as those educated in England; and that those educated in England should be as well educated as those educated in Scotland; and that then the practice in the two countries should be common to both. I think the Scotch education in general is fully equal to that of the great mass of practitioners here; I think the education of physicians is not quite equal to that of the physicans here, for this reason especially, that they require no preliminary education. I have referred to three bodies in Scotland: the Faculty of Physicians and Surgeons in Glasgow, who have the power of licensing for four counties in Scotland; the University of St. Andrew's, without a hospital or medical school; and the University of Aberdeen, with comparatively small institutions of that kind. With respect to Aberdeen I believe that they have a good hospital and a pretty good school. There is no licence for surgeons at Aberdeen; I think all those bodies might license for the whole kingdom, under a proper supervision of the Council of Health, and that they should have power to do it.

Corporate Morality.—I think all the bodies here and there too would require a little looking after. Supervision in all cases would be necessary. Their interest would lead them, if an equal standard were fixed, practically to examine parties below that standard, with a view of attracting; but that will, I hope, be counteracted by higher motives. It would be the practice with some, I have no doubt, as at this very moment in St. Andrew's they give degrees upon examination without any particular course of study.

The College of Physicians.—I am aware that the College of Physicians have applied for a new charter. I think their present charter a most absurd one, especially with respect to the election of the president and the body of elects. We obtained, under our new charter, a more summary power of expulsion from our body for *mala praxis* than there was formerly. In my opinion this is salutary; I do not believe we have yet had an opportunity of acting upon it, and it will be often very difficult to act upon it, for it will be difficult to get evidence of *mala praxis*.

Penalties against Illegal Practitioners.—It is said that by the law as it now exists there are no operative checks upon the practice of per-

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sons coming from Scotland, or coming from Ireland, whose attainments are not sufficiently tested, or upon persons practising in England without being members either of the College of Surgeons or the Society of Apothecaries. My own opinion is against any restrictions as to private practice, but that is not the feeling of the profession, who generally differ from me upon the subject. My own opinion is, that the profession would do better if no one could be prosecuted merely for engaging in private practice, and that the only restriction should be that persons who had not licences should not be eligible for public institutions or public appointments. I would endeavour to effect the great object to be secured for the public, of obtaining the best acquirements, not by penalties for the want of them, but by encouraging the possession of them. I think that in the same way as individuals are always better from having to depend upon their own conduct and character, and not being propped up by others, so the profession would be better from having to depend upon its own character, and not being protected by penalties. I remember the bills of 1845. They proceed upon that principle of holding out inducements, and not inflicting penalties, and I entirely approved of them. In that respect those bills effected what I conceive to be politic, and many of the profession think the same; but the great mass differ from me in opinion. They would desire the infliction of severe penalties for practising without due legal authority. I would not recommend that course.

Penal Clause of the Apothecaries' Act.—The apothecaries have a very strict monopoly; that is, their act of Parliament gives them a very strict monopoly, but they cannot act upon the act of Parliament; they prosecute a few persons, but the great number of persons who practise without their licence are not prosecuted. Penalties, I may say, do not interfere with the practice of quacks or really uneducated persons at all. There will always be a tendency to employ quacks, because all must die in their turn. The medical profession can never do all that is required of them to do, and those who cannot be relieved by the regular craft will of course naturally look to others. While the demand for empirical practice is so general, I suspect that the proceeding by penalty to check it will be ineffectual. It is very desirable to stop it, if possible, but I do not think it can be done. Looking to the state of the profession generally, under the law as it now exists, and considering the bill for the alteration of the law as proposed in the present session, I would rather leave the profession as it is.

Free Trade in Medicine.—At the same time I am of opinion that the law regulating the medical profession is very susceptible of improvement in some respects. I think it a very great hardship that no one should be admitted to general practice here who has not been authorized by the Apothecaries' Society; I think it a hardship that those who are educated in Scotland or Ireland, who, from some technicality, cannot be examined at Apothecaries' Hall, should not be permitted to practise in England; but I think that the object may be attained by some other and better means than by that bill. Any man may practise as a surgeon in England without subjecting himself to a penalty; and I do not think surgery has at all suffered from that cause. I think surgery has more advanced than any other part of the profession, though there is no legal penalty upon parties practising as surgeons without a licence. I think that the profession might, without much harm, be thrown open in the same manner as surgery is; but the view which I take is this: when a person gets an opinion about his own case, he has a right to consult anybody, and anybody should have a right to attend him; but where one person has to appoint another to attend a third person, he should be required to appoint somebody who has a regular licence to practise. Therein consists the difference between the appointment by public bodies and the Government, and the choice of 'an individual, with respect to his own medical attendant; and that would extend even to schools and workhouses and ships. Wherever third parties appoint medical advisers, there the law should step in and obtain some security with respect to the competency of the party so to be appointed. That is the line that I would draw. Each individual should, according to law, exercise his own free choice, but public bodies should be compelled by law to employ only persons whose skill had been tested by some public authority. I think that would be a very good system. I do not say that it would be practicable to introduce it with the present feelings of the profession; but I very much suspect that if you wait twenty years the profession generally will be of the same opinion with myself. The bill now under consideration will establish a single faculty, and is in direct violation of the principle for which I would contend.

College Library and Museum.—The College of Surgeons has expended, within my memory, large sums in increasing its museum and adding to its library. The museum is more than doubled, and the library is a superior library; I suppose it is the best medical and scientific library in the kingdom. At the same time, it is no more than the college were bound to do, and undertook to do; they were placed at the head of the profession; they had funds for the purpose, and they have performed this duty very honestly, but it was no more than they ought to have done.

Scotch and Irish Medical Practitioners. With respect to practitioners from Ireland or Scotland who come to practise surgery in England, I think that, in the event of their having the same qualification in one part of the kingdom as in another, if they removed from one part to another, it would be well that they should be admitted *ad eundem* to the college in the part of the kingdom in which they resided. It would not be just to admit them *ad eundem* without some contribution on their part to the fund which maintains this valuable library and museum; but a moderate contribution would be sufficient. I think it would be better that they should be admitted with the view of registration into our college. It would be convenient for registration at all events; but I would not compel them to be examined if they had been previously examined. The infliction of a penalty would not be at variance with my principle; if they were not admitted it would not affect their private practice; it would be only necessary to qualify them to hold public situations; and upon persons holding public situations without a licence I would inflict a penalty. I have not considered that particular point a great deal, that a surgeon duly licensed at Edinburgh should, if he came to practise here, be eligible to fill a public situation, as the surgeon of a hospital in England, unless he were a member of the College of Surgeons in England; but it appears to me that it would be, on the whole, desirable that if he came to practise in England he should become a member of the College of Surgeons, on the payment of a small contribution; which would be only a fair contribution, considering the privileges to which he would be entitled on becoming a member.

Registrars.—I believe that I endeavoured to point out that you could not have a fair system of registration in the first instance without giving a good deal of discretion to those to whom the registration was confided, such an amount of discretionary power as you could not venture to give to an individual; that, even if it was a large body, they would be liable to charges of prejudice and partiality; but that, if it were an individual, he could not stand against the clamour that would be raised. That objection applies to the intrusting the discretion to a single person; but I mean to say, also, that a registrar for England, and a registar for Scotland, and a registrar for Ireland, would be an evil, because each would act separately. I think it necessary that the registration should be on a uniform principle, under some central authority.

Registration.—The form of registration put in by Dr. Hawkins, the registrar of the College of Physicians, is formed on the model of the naval list. I think that would be very good; some names would be found in two lists. Of those who are qualified by a licence to practise you may make a register without any difficulty, because the College of Physicians print their list, and the College of Surgeons print their list, and the Society of Apothecaries print their list, so that you have only to send these three lists to the printer and have it published in two days; but that would not include all who ought to be included, because there are a great many Edinburgh physicians, and physicians with foreign degrees, practising in the country, who are not properly and legally physicians, but who are very good physicians, accepted by the country as physicians, and who ought not to have the power of practising taken away from them, but they would not be included in the list of the College of Physicians; so again there are several good surgeons not belonging to the College of Surgeons who would not be included in their list. I do not consider it desirable to pass a general measure for the registration of medical men for the whole country.

University Education.—I do not think it undesirable that surgeons should be educated at English univerities if they could enter upon the study of their profession at the age of twenty. Dr. Buckland, the dean of Westminster, sent his son by my express advice to the university; but all that I really mean is, that it is desirable that they should get a good education. Dr. Buckland's son intends to enter the profession as a surgeon, and he is about to take his degree at Oxford. All I mean to say is, that it is desirable that they should obtain a good education; where they obtain it I do not care; they may obtain a very good education though they are not sent to the universities.

Supervision of Education.—I think that the supervision of medical education and of sanitary regulations might be entrusted to one body. The higher eminent medical men from Ireland and Scotland would have to be in London only occasionally. My notion is, that there would be Scotch and Irish committees; that they would act separately in Ireland and Scotland, the concurrence of the whole of the three bodies, however, being required for some purposes. In that way I think we could secure local action and a united body; the matter was very well considered formerly, and the Scotch and Irish saw no difficulty in it.

Druggists' Practice.—The tendency of the present improved medical education is to secure to the whole country a class of men whose education has been expensive, and the effect of that is to drive the poor man to the chemist's shop for advice as well as for medicine; but I have already stated that it is not desirable to put any legislative check upon that. I think it desirable that chemists should be required to prove that they understand pharmacy; but if you were to require of chemists a medical education, you would institute another order of practitioners. I think that it is an evil that must be left to cure itself, legislation cannot reach it; but I repeat that these are not the opinions of the profession.

Faculty of Physicians and Surgeons of Glasgow.—It is the general opinion of the profession that the persons who had received the diplomas of the Faculty of Physicians and Surgeons of Glasgow are not properly qualified. I know nothing of it of my own knowledge, but I speak the general opinion of the profession. I did know something of the constitution of that body and of the curriculum enforced there. I only mentioned it by way of illustration. But I have no personal knowledge of it. There is a hospital attached to the Medical School at Glasgow, and a museum. Medical students at Glasgow have very good means of studying. The museum belongs not to the Faculty of Physicians and Surgeons of Glasgow, but to the college.

Oxford and Cambridge Degrees. — Very little test is required by the English universities of Oxford and Cambridge. The fact is that Oxford and Cambridge men are all educated in

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London; London is their medical school. They have a medical school, but I do not believe that any students trust altogether to those medical schools. They grant degrees, and I think it is quite proper, for the degree is a proof of a good general education, and at the same time of their having acquired some knowledge of their profession; but the principal advantage of the Cambridge and Oxford degree is, that it is a proof of their having had a good education. I think that in a place like Glasgow, where they have not only a good general education, but the addition of a museum and a library, they would be highly qualified to grant degrees; and I think it is also right that they should require the same attainment as is required of a physician here. I believe they have a very good school; still I do not think the schools are to be compared with the London schools, on account of the greater number of hospitals, which are also here of larger size, and the greater competition. I believe the degrees of Oxford and Cambridge are granted now upon medical examination, but I do not know the details. I do not know whether the examiners are competent examiners; I very likely might be incorrect. I have seen the diplomas and the degrees granted at Oxford and Cambridge. The medical professors there are all known, and I do not doubt that they are parties competent to examine upon medical subjects. I have not seen the diplomas of the Faculty of Physicians and Surgeons in Glasgow; they give a licence to practise only in four counties, known to the profession generally. The names of the examiners who grant those licences that I saw formerly, were not known to the profession generally.

Country Practitioners.—In connection with the supply of the wants of the poor in country districts, I must say that I think, on the whole, they get very good medical advice in the country. I go very often into the country to see patients, and I am very much struck with the general good sense and knowledge of the country practitioners; they are thrown very much upon their own resources, and are compelled to use their wits, and for the most part know a good deal upon the subjects in which they are engaged. Those who are members of the College of Surgeons first may practise as members, and many who have become members become fellows afterwards. During that interval their practice goes on; but the greater part of the best educated men at no time begin practice before the age of twenty-five.

Objections against Penalties. — I would not put a penalty on private practice; but I would put a penalty on public practice without a licence. There is more difficulty in an individual selecting a competent medical man than in members of a public institution doing so. But if the Government publish a list of qualified persons, and any person says, "I will not take a person out of this list, but I will go to somebody else," it is his own concern, and I do not think that you should interfere with it. The same rule should not hold with respect to public institutions, because, in the first place, I think it is unjust to prevent my consulting anybody I please. It is not equally unjust to prevent a public institution doing so. I may go and fling my own money into the streets, but I must not fling the money of a public institution into the streets. An individual is very often a bad judge in his own case, as he is in a great many other matters. A surgeon himself very often prescribes very badly for himself. An individual must be in a great measure an imperfect judge of the capacity of his own medical adviser, but then he may take the Government list and look for a proper person, if there be a register. I think it is not the duty of the State to think for individuals on all occasions. I may employ a bad architect, and may be very foolish for doing so, but the State does not come and say, "You shall employ only my architect." I think that the medical profession ought to be left to depend on its own character. I draw a distinction between an individual and a public institution, thus—I think I have a right to do what I like with my own person, but, if I have any power of appointing a person to attend you, I do not think I have a right to send my quack doctor for that purpose. I should think it unfair to restrain me in my own person from consulting a homœopathist. If Sir James Graham were colonel of a regiment of guards, and by force introduced a homœopathist into the hospital of that regiment of guards, I think that he would deserve to be transported. Supposing we were so unfortunate as to have a dispute upon matters of property, it would be unjust to prevent our agreeing upon an arbitrator who might not be a barrister, to settle the matter between us; but there is no objection to the Legislature saying that persons appointed as judges to the local courts shall be barristers of a certain number of years' standing. We have the power of choosing any person that we please to act as solicitor for certain purposes. The case of the solicitor is confirmatory of my view of the matter; anybody may act as a solicitor in many respects, but he cannot go into a public court as a solicitor. Any person may draw your lease, but in a court of justice you must have a regular solicitor to act for you. A person is not suffered to go into court, or to prepare a public document for you, without being a regular lawyer. But in private you are at liberty, upon legal points, to consult whom you please. I may call in my tailor to draw my will for me, I must take the consequence of doing so, but the law does not prevent it; and many bad wills have been drawn in consequence. If I had a lawsuit I might send out my servants to examine the witnesses; but no person who has not undergone a regular examination is admitted to come into court, and act there as my solicitor; and that confirms what I say, that the cases are parallel.

Present State of Medical Education.—I believe I said the science of surgery has much improved of late years. I think that the science of medicine has improved very much too, but I there spoke of the improvement in the science of surgery. I said that I was not aware that the education of the great mass of practitioners had been much improved. I think the great mischief at present is the cramming for the examination at Apothecaries' Hall, and the fault, if there be any, is with the Legislature, I suppose. I was confining my remarks to general practitioners especially. What I meant to say, and what I believe I did say, was, that what is required of general practitioners is much greater than formerly; but I do not think that the improvement has gone on in the same degree, on account of the circumstances, with which I am sure you must be acquainted, which make it necessary for the candidates to be crammed for the examination at Apothecaries' Hall. I was a teacher in anatomy for some few years before the Apothecaries' Act was passed, and I must say that I never saw a more industrious set of young men, or young men who were more disposed to perfect themselves, than the students then were; and though not so much was required of them, yet I think they acquired as much useful knowledge. I think our examination refers to matters which the college consider to be the most useful in the exercise of the professional functions of a surgeon.

Crammers Again.—I think that a vast deal of the time of the candidates is lost in their being crammed. The whole of those who are admitted to practise now are required to come up to a higher scale of examination; but I think that those who did study formerly improved themselves quite as much as the students improve themselves now. A great many, however, practised without any study; there is, therefore, an improvement in that respect. The cramming system, I suppose, has always existed all over the world, more or less; but I think that to the extent it now prevails it is quite modern. I believe that it applies to the College of Surgeons as well as Apothecaries' Hall to a certain extent, but not to as great an extent. I am not aware that cramming occupies a short time; I believe it occupies a considerable time. Mr. Harrison, the treasurer of Guy's Hospital, who has studied the subject very much, tells me that it takes away the best men in their third year; that is, when he has a young man whom he wants to raise in the school, he is taken away to be crammed in the third year. Six months is almost the whole period of study in a session. It is one winter session. The evil lies in this: that in consequence of a young man knowing that he can be crammed in three months, he neglects the education which would otherwise be necessary for the examination that he has to undergo; that partly by the cramming, and partly by the neglect of study connected with the cramming, he loses his time. I do not mean to say that all the time is lost in the process of cramming, but partly in the neglect of study before the cramming. He knows that he cannot pass his examination at Apothecaries' Hall without being crammed; the best student cannot pass his examination without being crammed; and a young man says, "If I am to be crammed, there is no occasion for my working so hard previously." The examinations should be conducted by persons who either are or have been public teachers. I do not conceive that, as a general rule, any other persons can be competent.

(To be continued.)

CENTRAL CRIMINAL COURT, Dec. 15,

OLD COURT.

[Before Mr. Baron Rolfe and Mr. Justice Wightman.]

William Newton Allnutt, aged twelve years, a boy of diminutive appearance, was placed at the bar, and arraigned upon an indictment charging him with the crime of wilful murder, in having unlawfully mixed a large quantity of arsenic with sugar with the intent that Samuel Nelme should take the same, and that having done so he became mortally sick and distempered, and died.

During the trial the prisoner was seated in the dock with his face buried in his hands, and apparently absorbed in grief.

Mr. Ryland conducted the prosecution, and, in addressing the jury, said, that the very extraordinary and important case which he was about to lay before them would, he was sure, receive their most serious attention, and he begged them to be guided solely by the sworn testimony which would that day be adduced before them. The learned counsel then proceeded briefly to detail the circumstances under which the charge was preferred, and the following evidence was then adduced:—

Maria Bucker, who had lived as a servant in the family of the deceased, at Grove-street, Hackney, deposed that on the Sunday before the death of Mr. Nelme, the prisoner asked witness if she did not think his grandfather would go off suddenly?

Mr. Toulmin, surgeon, deposed that he attended the patient thrice on Wednesday, Oct. 27. Neither in the treatment of the disease nor on opening of the body did he observe anything suspicious in the case. Deceased vomited, complained of pain in the bowels, and was much purged. The contents of the stomach were put by for examination, and on the 1st of November witness was sent for by Mrs. Nelme, from whom he received some arrowroot and pounded sugar; he attempted to dissolve a portion of the latter in water, and gave the remainder to Dr. Letheby, who discovered in it white arsenic. Until witness heard of the existence of poison in the sugar and in the stomach of the deceased, he fancied death had resulted from natural causes. He had attended the prisoner for scrofulous abscesses, which, if suppressed externally, might affect the brain, and therefore the intellect.

Dr. Letheby proved the analysis by himself of the contents of the stomach, intestines, and a portion of the liver, as well as the sugar and arrowroot received from the last witness. He employed the usual tests, modified by his own experience, and detected a considerable quantity of arsenic in the stomach of deceased, and a trace of it

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in the brain. In four ounces of the sugar he found half an ounce of white arsenic. Witness believed that the quantity of white arsenic found in the body of deceased was not less than four grains; the arsenic in the liver had been there, he should say, a week; that in the intestines he believed was taken shortly before death. No doubt the arsenic discovered in the brain and liver had been taken into the system at a much earlier period than that which was found in the intestines; such is witness's opinion, at least. It would not have been his opinion if the deceased had been in health up to a very recent period before his death. If the arsenic had been administered medicinally, it would not have accumulated in the intestines as it did; under such circumstances it generally passes off immediately.

Mrs. S. Nelme, widow of deceased, stated that her husband was at the time of death in his seventy-fourth year, and up to a few days before his decease was in the enjoyment of good health. He first complained of illness on the Friday before he died; his family thought he had a slight cold. On the next Tuesday he first complained of sickness. A basin containing pounded sugar was usually placed on the table after dinner, and deceased always used sugar from that basin with fruit, a fact which the prisoner knew; the latter had access to the basin. The sugar was almost exclusively used by deceased. Witness did put some of it into some arrowroot which she took on the Monday, and was very ill afterwards.

Mrs. Allnutt, the mother of the prisoner, said she knew that her father was in the habit of having arsenic in the house, which he kept to poison rats with, and the prisoner had seen it used for that purpose. One day, a week before her father died, the boy asked her what arsenic was like, and she told him it was like flour. Her father generally used a good deal of sugar with his fruit. Witness made him some gruel on Sunday night, and sweetened it with this sugar; she also partook of the same gruel, and was dreadfully sick for three days, and very ill for a fortnight.

Cross-examined by Mr. Ballantine: The boy's father was subject to epileptic fits, and died completely mad at thirty-seven years of age. Witness was in great trouble at the time of the birth of the prisoner. When eighteen months old, prisoner fell upon a ploughshare, and it was at first thought he was dead. He had given her great trouble by his misconduct, and she had frequently remonstrated with him, but her remonstrances did not appear to create any impression upon him, and he used to tell her that he did not feel that he was doing wrong. In January last he had a fall upon the ice, and since then his conduct had been much worse than before. He was brought home after the fall, and he was very pale, and his eyes looked vacant and bewildered, and she was quite struck with his appearance. He used frequently to complain of illness, and from his appearance there was no doubt that he suffered a great deal. When she complained of his conduct on some occasions he would tell her that some one seemed to say to him in his head, "Do it—do it; you will never be found out." He said this after her father's death, and when she complained of his having taken a watch. The prisoner was in every respect quite different to her other child, and he had given her great trouble on account of his bad conduct, and also on account of his health.

Dr. Letheby was recalled, and, in answer to a question from the court, said that walking in the sleep was an indication of a disordered state of the brain. It might be occasioned by some organic cause, or from some disordered state of the stomach; and the same observations, he said, would apply to talking in sleep. A violent blow upon the head might also have the effect of tending to disorder the brain.

An inspector of police was then called, to show that the prisoner was given into his custody.

By Mr. Ballantine: The prisoner was given in charge for stealing a watch, and he said, "Pray, forgive me; I was tempted to do it." I asked him who had tempted him, and he replied, "It was no person, but a voice which said, 'Do it, do it; you will not be found out.'"

Mr. Ryland said, he should now propose to read the letter written by the prisoner to his mother.

Mr. Ballantine said, he should object to the letter being given in evidence, as it appeared by the evidence the letter was written after the prisoner had been visited by the ordinary of the prison, and the prisoner in his letter referred to that interview in terms which would render it extremely doubtful whether such an inducement was not held out to him to make the subsequent statement as would render it in law inadmissible in evidence.

Baron Rolfe said, the letter must at all events be read up to that portion of it where the objection would arise.

The letter was as follows:—

"My dearest Mother,—As you cannot come to see me, I hope you will write to me, and tell me what I ought to do to get forgiveness for what I have done, for I know that I have sinned against God, and deserve to be sent into hell. Mr. Davis preached a beautiful sermon on Sunday, and after service time he told me that, if I did not confess what I have done, God would not forgive me, and every one was sure I had done it, and he told me I had better confess it to you, and he told me just what you have told me, that if God was to strike me dead, where would my soul go to."

Mr. Ballantine here interposed and said, it occurred to him that the rev. ordinary ought to be called as a witness, in order to ascertain whether such an inducement had been held out to the prisoner to make the statement as would render it inadmissible.

The Rev. Mr. Davis was sworn, and said, I am the chaplain of the gaol of Newgate. On Sunday, Nov. 21, the prisoner heard me preach twice, once in the morning and again in the afternoon. I gave him some general instructions with regard to his religious exercises, and no doubt I told him that he could not expect forgiveness from God unless he confessed his sins.

Mr. Ballantine: Are you sure that the prisoner understood that you alluded to the confession as to be made to God?

Mr. Davis: I took particular care to impress that upon his mind; I certainly did not tell him that I believed he had done it, or that it would be better for him to confess to his mother; neither did I ask him where he expected his soul would go to if he were to be struck dead, and his statement that I did so is entirely the imagination of his own brain. In point of fact it is an entire invention.

Mr. Ballantine admitted that after this evidence he could not urge his objection to the production of the letter.

Mr. Streight then read the remainder of the letter:—

"I now confess that I have done what I am accused of. How I got the poison was, that on the 20th of October grandfather went to his desk for the key of the winecellar to get some wine up, and to look over his accounts, and whilst he was gone I took the poison out, and emptied out some of it into another paper, and put the rest back, and then after dinner I put it in the sugar-basin, and why I did it was, I had made grandfather angry with something I had done, and he knocked me down in the passage, and my head went up against the table, which hurt it very much, and he said the next time I did it he would almost kill me."

Mr. M'Murdo, the surgeon of the gaol of Newgate, was then examined, and he said, that he had seen and conversed with the prisoner almost daily since he had been in the gaol, and he never observed anything in his conduct to induce him to believe that he was not of sound mind, or incapable of distinguishing between right and wrong.

This closed the case for the prosecution.

Mr. Ballantine then addressed the jury for the prisoner, and said, that in the first place, he should contend that the evidence was not sufficient to justify the jury in finding a child, twelve years of age, guilty of the horrible crime with which he was charged, and that the letter which he had written ought not to have any weight on their minds, because it was quite clear that, although the rev. ordinary of the gaol might not in any way have exceeded his duty, yet it was exceedingly probable that a child like the prisoner might have misunderstood the effect of his observations, and have been induced to make such a statement in the hope of escaping punishment. The learned counsel then proceeded at some length to comment upon the circumstances of the case, and argued that the whole conduct of the prisoner, even if they should come to the conclusion that he was guilty of committing the act of poisoning his grandfather, showed that he was not in such a state of mind as to be accountable for his actions, and said he should produce testimony which would strengthen that impression, and, he had no doubt, would induce the jury to return a verdict to that effect.

Mr. E. H. Payne deposed, that he was of the medical profession; he had attended the prisoner medically, and knew that he suffered from scrofula; and from the knowledge he had acquired respecting him, and what he had heard connected with this case, he was of opinion that at the time he committed the act he was partially insane, and incapable of distinguishing between right and wroug.

Cross examined: Had not seen the prisoner for several months until lately. At that time he came to his house on a visit, and then he did not consider him partially insane.

Mr. Croucher, surgeon to the Berks county gaol, said, he attended the prisoner when he was eighteen months old for the injury he received from falling on the ploughshare. It was a very severe injury, and calculated to affect his brain.

Dr. Densbury said, he was a physician, and resided at Clapton. The prisoner was brought to him by his mother several times during the months of March, April, and May, of the present year. The prisoner was suffering from indigestion and scrofula in a marked degree. He was told at that time that the prisoner was in the habit of walking in his sleep, and also shrieking while asleep; and from his knowledge of the state of his health, and all the other circumstances of the case, he was of opinion that when this matter occurred the prisoner was not in a sound state of mind.

By Mr. Ryland: In my opinion he was in an early stage of insanity, which affected his moral sentiments and interfered with his notions of right and wrong, but which did not yet affect his intellect in any marked degree.

Mr. Ryland: Do you mean us to understand that he might have poisoned his grandfather and not be aware that he had done it, or that it was a wrong act?

Witness: I think he might have committed the act, and yet only have known it by hearsay.

Mr. Ryland: What do you mean, Sir, by that expression?

Witness: I mean he might not know it until he was told he had done it. I think it is possible he might be aware that he was poisoning some one, but yet not be able to control his actions, and that he had not the moral sense of distinguishing between right and wrong so as to make him responsible for his actions.

Dr. Connolly, the physician to the Hanwell Lunatic Asylum, said, that, from the evidence he had heard on this case, he was of opinion that the prisoner was imperfectly organized, and he should use the term which was now generally used and understood by medical writers, that he was of unsound mind. He should say that his brain was diseased, and he considered that as he advanced in life his insanity would become more apparent; but he was of opinion that he would exhibit it more by a deranged conduct than a derangement of intellect.

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Mr. Baron Rolfe then proceeded to sum up the case to the jury, and he said it was one of a very important character, not only as regarded the nature of the charge and the consequences that might result to the prisoner, but also with regard to the defence that had been set up, which was one that, when it rested upon slight grounds, if juries did not put a check to, might be attended with very disastrous results to society. After alluding to the facts adduced in support of the charge, the learned judge said, that if they should be satisfied that it was the hand of the prisoner which occasioned the death of the deceased, they would next consider the important question with regard to the state of mind of the prisoner at the time that act was committed; and it was his duty to tell them, that the law required the party accused to produce satisfactory evidence that at the time the act was perpetrated he was not in such a state of mind as to be able to distinguish between right and wrong. Now, the question for them to decide was, whether they had such evidence in the present case. He did not for a moment desire to disparage the evidence of scientific men, but he must tell the jury, that all they were required to do was to listen attentively to such evidence, and they were not bound to pay a slavish obedience to it, but might reject it if they felt that it did not accord with their own common sense and experience. The witnesses called for the defence had described the prisoner as acting from uncontrollable impulse, and they had made other statements, of the value of which it would be for the jury to decide; but he must say that it was his opinion that such evidence ought to be scanned by juries with very great jealousy and suspicion, because it might tend to the perfect justification of every crime that was committed. What was the meaning of not being able to resist moral influence? Every crime was committed under an influence of such a description, and the object of the law was to compel persons to control these influences; and if it was made an excuse for a person who had committed a crime, that he had been goaded to it by some impulse which medical men might choose to say he could not control, he must observe that such a doctrine would be fraught with very great danger to the interests of society.

The jury retired at half-past five o'clock and returned into court in a quarter of an hour, when they gave a verdict of "Guilty," but at the same time earnestly recommended the prisoner to mercy on account of his tender age.

The prisoner upon hearing the verdict became dreadfully agitated, and it was necessary for one of the turnkeys to support him while the learned judges were conferring upon the judgment to be pronounced.

Mr. Baron Rolfe, after a short interval, addressed the prisoner, and said, that after a very full and attentive consideration of his case, the jury had come to the conclusion, and he rejoiced that they had done so, that he was guilty of the horrible crime laid to his charge. Let him not be misunderstood as to the reason why he rejoiced at their coming to so painful a decision. The reason he rejoiced was, that the jury had not shrunk from the discharge of a duty which men of weaker minds might have recoiled from, and that they had not returned a verdict which they felt their consciences would not sanction. The jury had treated the defence of insanity that had been set up in his behalf as trifling with their judgment—they felt that he knew but too well that the act he committed was one that would send his grandfather, to whom he owed existence, to the grave. An endeavour was first made to show that his understanding had not arrived at sufficient maturity to make him responsible, and then the more captivating defence, the attempt to establish his insanity, was made, in order to induce the jury to swerve from the strict path of duty. This was a defence which was very frequently made, and which was too often successful, and he rejoiced that the jury had thrown to the winds the idle sophistry by which the defence was sought to be made out on the present occasion. They were, however, satisfied that he had knowingly sent his aged grandfather to his account, and had, therefore, not hesitated to declare that he was guilty of the crime of wilful murder. They had accompanied that verdict by a recommendation to mercy, which was one in cases of murder that, except in the present instance, he had never felt himself justified in paying any attention to. In this case, however, he would give effect to that recommendation, and taking into consideration the youth of the prisoner, and his want of experience, he should feel himself warranted in recommending that his life should be spared. At present sentence of death must be recorded, but he would take care that the recommendation of the jury and his own should be laid at the foot of the throne, where alone the power of mercy existed. He must, however, understand that, if any remission of the sentence was granted, it would not be from any belief that he was not in a sound state of mind, but solely for the reasons that had been stated; and he must expect that, if his life should be spared, to pass the whole of the remainder of it in ignominy and disgrace.

The prisoner was then removed from the bar.

THE LATE ALDERMAN DAVIS.

The melancholy duty devolves upon us of recording the death of one of the most valuable and most respected of our neighbours—Mr. Alderman Davis. He expired at his residence at Wrekenton, on Monday week last, in the fifty-fourth year of his age—not only a victim to the prevailing fever, but a self-sacrifice to the duty, to him the most pleasing of all, of alleviating the distresses and promoting the comforts of his fellow-creatures.

No passage, in short, of Mr. Davis's honourable and useful career could shed a stronger lustre on his character, or render more imperishable the memory of his good deeds, than the concluding chapter of his life. The innate and expansive charity of his soul led him to the deathbed of others and laid him on his own. With the stricter duties of his profession he united, during his attendance on the Fever Hospital established in his locality by the Gateshead guardians, all the assiduities and attentions of which the warmest friend and neighbour could be susceptible. No hour was unseasonable, no length of time an obstacle to him. The breathings of gratitude could not quicken, nor could the whispers of dispraise retard, his footsteps. His path, he felt, though dangerous, was not crooked; and he resolved to tread it though it might terminate in the grave.

The establishment of the Fever Hospital in the vicinity of Mr. Davis's residence, so far from being regarded by that gentleman as a nuisance or complained of as an intrusion, received his approbation and support. Turning neither to the right nor to the left, he only looked forward to the opportunity it presented of prospective good. The purer air of his own more elevated locality, in his eyes, was so evidently the birthright alike of poor and rich, that to deny its blessings to the former would be to violate the injunctions and repudiate the beneficence of Heaven. And the principle he professed he practised. His time, his talent, his life, he placed at the disposal of the poor. The timid and the selfish might shun the abode of the helpless, but in his ears their cry ever sounded as a command. For some weeks he laboured in his glorious vocation, and at last sank peacefully to rest, thus championing the fearlessness and consistency of his life by an act of holiest martyrdom at its close.

But it is not as an able and indefatigable and benevolent practitioner alone that Mr. Davis will be long remembered by the thousands who, during a period of upwards of thirty years, have been witnesses of his zeal and recipients of his assistance. His domestic virtues require no record here: the sorrows of his family and the sympathy of their friends, far beyond the power of any pen of ours, testify and embalm them. As a useful citizen, however, as an active and upright magistrate—as one who has filled with honour and credit the highest civic office to which the community in which he lived could elevate him—his name will be associated with the municipal history of this borough, and associated with it on its every page. Long will his exertions in favour of every good and in resistance to every evil measure be engraven on the hearts of those who have enjoyed the happiness of his co-operation. In the town council, on the bench, in the hospital, he was actuated by one and the same spirit—ever seeking the advancement of good by the diminution of evil. Justice itself, in his view, was but another name for mercy. Every act of his magisterial life was in perfect accordance with the charities which he engrafted on his profession and the affections with which he sanctified his home.

On no questions was Mr. Davis, at the council board, more urgent and energetic than on those in connection with sanitary reform. The very unobtrusiveness with which he laid his admonitions and his warnings before the council added to their weight, and to the universal respect with which their author was regarded. His lamented death will cause them to be remembered—deeply we are sure—and we trust usefully. The most grateful tribute which his colleagues could offer to his memory would be to act upon his suggestions, and combat the foe by which he himself has been subdued, with the armour he has so often and so earnestly recommended. Would that any words of ours could hasten the sanitary movements of our municipal representatives! Were such a result probable, we would address them thus:—"One of the noblest and ablest of your body has died in the execution of his duty: may yours be the happier, although not more glorious, lot of living to witness the fruits of his advice, through your instrumentality, ripening on his tomb."—*Gateshead Observer.*

THE LATE WILLIAM DALRYMPLE,

Surgeon, of Norwich, was born in 1772. At an early age he was sent to the Grammar School at Aylsham; whence he was removed to the Free School, Norwich, and became a favourite pupil of Dr. Parr, together with Dr. Maltby, the present Bishop of Durham. It is worthy of remark, as affording a strong proof of Mr. Dalrymple's early talents, and his subsequent industry in cultivating them, that notwithstanding he was, in accordance with the then custom of requiring medical apprenticeships to extend to seven years, obliged to leave school at the early age of fourteen, he yet had attained such a proficiency in classical reading, and so correct a taste and ardent love for its beauties, that, amidst all the urgent and various occupations and anxieties of his succeeding life, he found the greatest relief to his toils in recurring to his favourite authors.

Mr. Dalrymple was apprenticed in London, to Messrs. Devaynes and Hingeston, the Court apothecaries of that day, and his surgical studies were pursued at the then united hospitals of St. Thomas and Guy, under those eminent men, the elder Cline and Sir Astley Cooper; from the former, whose name and memory he venerated to his latest day, he received numerous marks of kindness; and with the latter he maintained an uninterrupted friendship throughout his distinguished life. On his return to Norwich in 1793, he opened a surgery in his father's house, and there for some year's had to struggle against the violence and injustice of the then dominant party, who strove to arrest his progress, for advocating the principles of civil and religious polity. In 1813, Mr. Dalrymple attracted the attention of the medical profession by the successful performance of the very difficult operation of placing a ligature upon the common carotid artery. It is believed that Mr. Dalrymple was the first operator who succeeded in tying the vessel below the division, an operation of much greater intricacy and difficulty

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than that of tying the external branch. The patient had been rejected at the hospital as incurable; and it is worthy of remark that she narrowly escaped instant death from the hands of the ignorant and effete practitioner, whom party spirit had placed in the institution, to the exclusion of Mr. Dalrymple, the said functionary being about to plunge his lancet into the aneurism, mistaking it for a common abscess. Mr. Cline, Sir Astley Cooper, and other surgeons came down to Norwich, to see and examine the patient when she was convalescent. Mr. Dalrymple was excluded from office in the Norfolk and Norwich Hospital, till the last month of the year 1812, when he was forty years of age, and, as Johnson said of himself, "was known, and did not want it." He was then, however, unanimously elected to the assistant-surgeoncy, and two years afterwards to the surgeoncy vacated by the late Dr. Rigby. His career in that institution was marked by industry, skill, kindness, and success, which have never been surpassed. In lithotomy, that branch of surgery for which the Norfolk and Norwich Hospital has been more particularly celebrated, his average exceeded that of any former operator, nor was he less successful in other branches of the healing art. His talents and acquirements were now acknowledged by appointments to the office of surgeon to Doughty's and St. Helen's Hospitals; the Bethel, and the County Asylum for Lunatics; and difficult midwifery in the city practice. His private practice had considerably increased, and on the death of Mr. Martineau, in 1829, he might justly be considered as "princeps et facile princeps" of provincial surgery. The incessant call for exertion, which a widely extended practice necessarily induced, told, however, very sensibly upon a constitution originally feeble, and he was at different periods compelled to absent himself from his home and his professional duties, in order to regain health and strength to perform them. A high gratification it must have been to him, to witness the interest taken in his behalf, and the cordial satisfaction evinced by his friends and patients when he returned to his labours. In his seventy-first year he found himself compelled, from declining health, to abandon the profession to which he was so warmly attached, and which he had pursued for fifty years with so much advantage to his fellow-creatures. He accordingly tendered the resignation of his office in the Norfolk and Norwich Hospital, and was requested to continue as honorary consulting surgeon.

Mr. Dalrymple, from the very commencement to the latest period of his practice, was engaged in anatomical and pathological researches, the result of which was the formation of a very valuable collection of preparations; and this, with the most praiseworthy generosity, he presented to the Norfolk and Norwich Hospital, on his retirement. This noble gift was suitably acknowledged,

Mr. Dalrymple was married to Miss Marianne Bertram in July, 1799, who, with six sons and three daughters, survives him. He died in London on Dec. 5, and was buried at Highgate Cemetery on Dec. 11.

GOSSIP OF THE WEEK.

War-office, Dec. 17.—4th Foot: Surgeon Thomas Galbraith Logan, M.D., from the 53rd Foot, to be Surg., vice Dartnell, who exchanges. 53rd Foot: Surg. Nelson Dartnell, from the 4th Foot, to be Surg., vice Logan, who exchanges. 76th Foot: George Anderson Wilkinson, gent., to be Assist.-Surg., vice Wallace, deceased.—Hospital-Staff: Frederick Augustus Kingdon, M.D., to be Assist.-Surg. to the Forces.

Naval Appointments.—Surgeons: J. Bankier, to the Bellerophon; J. C. Bowman, to the Inconstant; J. L. Clark, to the Hydra; G. Burn, to the Prince Regent.—Assistant-Surgeons: W. Patrick, to the Hydra; W. Gordon, to the Prince Regent.

Royal College of Surgeons.—The following members of the college were admitted fellows on the 16th inst., viz.:—Messrs. E. T. Warry, Lyndhurst, Hampshire; J. Cockle, Guildford-street; C. Radford, Uckfield, Sussex; J. S. Bartrum, Gay-street, Bath; T. S. Beck, Upper Marylebone-street; W. Clapp, Greenwich; D. D. B. Hovell, Clapton; J. W. Fletcher, Bengal Army; and T. Callaway, jun., Wellington-street, Southwark.—Admitted Dec. 20: T. P. Francis, T. Crowther, S. B. Birch, G. E. Gains, F. J. Barton, J. Barrow, M. H. Ashwell, J. S. Gundry, T. P. Rust, C. F. A. Courtney, G. Welford, J. Graham, W. Parry, W. C. Orford, and J. F. Ollard.—Admitted Dec. 27: W. Crosby, J. Bennett, W. Fuller, W. S. Falls, F. Glinton, R. Calthurst, C. W. Price, A. Barton, and F. S. Hodges.

Apothecaries' Hall.—Gentlemen admitted members on Dec. 16:—Alexander George Cockburn Thiselton, Haworth, Yorkshire; Gustavus Irwin Knight, Tilbury Fort; Horace Harrison Smith, Ramsgate; William Henry White, Stevenage Herts; and Hugh Green, Boxford, Suffolk.

The New Poor-law Board.—The appointments under the Poor-law Act (10th and 11th Victoria, chap. 109) having been completed, the act will take immediate effect. It was passed in July last, and its operation has been delayed until official notification was made of the president's appointment. By the act, commissioners may be appointed by a commission, and the commissioners first appointed are to enter on their office, and all the powers vested in them to take effect, on the day after the first publication of such notice in the *London Gazette*. Mr. Buller's appointment as president of the new board has already appeared. The President of the Council, the Lord Privy Seal, the Home Secretary, and the Chancellor of the Exchequer are *ex-officio* commissioners. Power is given to the commissioners to appoint two secretaries and other officers. Mr. Nicholls and Viscount Ebrington have received their appointments, and other situations have been filled, including "inspectors" who were assistant-commissioners, which title is now defunct. By virtue of the following provision, all powers and duties of the poor-law commissioners are now transferred:—Sect. 10, "And be it enacted, that on the day on which the commissioners first appointed under this act shall enter on their office all the powers and the duties of the poor-law commissioners with respect to the administration or control of the administration of relief to the poor throughout England, and all other powers and duties now vested in them, shall be transferred to and vested in the commissioners, and shall be thenceforth exercised by them, and by the commissioners appointed from time to time in and by any new commission or letters patent under the provision of this act; and all provisions in any act relating to the administration of relief to the poor in England, or to the powers or duties of the poor-law commissioners, shall be construed as if in the said several acts the commissioners had been named instead of the poor-law commissioners; subject, nevertheless, to any amendments made by this act either as to the substance or manner of exercising any of the powers of the said poor-law commissioners, and, at the same time, all powers and authorities vested by any act in the poor-law commissioners appointed under the first-recited act, or any act passed for the amendment thereof, shall cease, and all secretaries, assistant-secretaries, clerks, messengers, and officers appointed and employed by the said poor-law commissioners in the business of their office shall cease to hold their several offices and employments." Among the alterations made by the new act may be reckoned the non-separation clause of married persons above sixty years old, and the provision (the 24th in the act) to ensure the due visitation of workhouses. This act is to be construed with the other acts as one act.

King's College Hospital.—At a meeting of the committee of management of the above excellent charity it was stated that the liberal anonymous donation of £100 had been made to the funds of the hospital, the benevolent donor merely giving the signature of "A Friend." It was added by the committee that it was chiefly by such charitable gifts that they were enabled to dispense the benefits of the hospital among the poor of the densely peopled district, the annual income from subscriptions and dividends being under £1800, while the expenditure exceeded £4000.

Extraordinary Application of Chloroform.—The value of chloroform is now fully established as an anæsthetic agent. We have recorded in our own columns many extraordinary applications of it in some remarkable cases, but none so remarkable as that to which, with considerable presence of mind, and with the most complete success, it was applied by Mr. Cox, chemist, Trumpington-street, in the following circumstances:—On Sunday night, as Mr. Garner, veterinary surgeon, of St. Ives, was returning through Cambridge with his horse and gig, from a visit to his brother at Hauxston, he had occasion to alter the harness, for which purpose he stopped at the "Little Rose." He had scarcely got out of the gig when the horse began to kick in a most terrific manner, to the eminent danger of a lady who remained in the gig, as well as that of Mr. Garner himself, who was holding him by the head, and a crowd of persons who had collected; but such was the fury of the animal that no one could render any assistance. At last the brute threw himself fairly down, Mr. Garner still holding him by the head; and affairs were in this desperate state when Mr. Cox, chemist (next door), apprehensive of the danger that might ensue, poured about a drachm of chloroform on his handkerchief and applied it to the animal's mouth and nostrils. The furious patient readily inhaled it, and in one minute became quite insensible and to all appearance dead. This allowed the gig and harness to be removed with perfect security, and in about five minutes the effect of the chloroform passed off, the horse got up, shook himself, and walked quietly into the stable. Such is the effect of chloroform even upon the horse.—*Cambridgeshire Advertiser*.

Deaths by Fever.—A Manchester paper announces, with regret, the death, from fever, of Mr. John Davenport, governor of Millgate Fever Hospital. Mr. Davenport had superintended the Millgate Fever Hospital since its establishment; he died at last from his over-attention to fever patients. No fewer than 3500 fever cases had been under his care during the comparatively short time he was in office. On Saturday, two of the nurses of the Millgate Hospital died of fever, caught in the discharge of their benevolent duties. Another of the officers has, it is feared, also been attacked with the prevailing epidemic.

A letter from Meaux states that the regiment of cuirassiers in garrison in that town has been attacked with a kind of typhoid fever. Out of six hundred men, three hundred are in hospital, and five died on the 12th inst. The authorities have given orders to have the men remaining well removed to different points. Some of them have already arrived in Paris.

The Cholera.—According to official documents from St. Petersburg of the 2nd, the cholera was sensibly on the decline in Russia. From the appearance of the disease up to the 22nd of November, the total number of persons attacked at Moscow was 2360, of whom 1097 died. In the districts of the government of Moscow 141 individuals fell ill, of whom 69 died. At Kieff, from the 9th to the 16th of November, there were 179 cases and 129 deaths. In the province of Kieff, up to the 13th of November, 93 persons died out of 139 attacked. With the cold season, and the extension of the malady towards the west, the disease had lost a great deal of its energy. It was, in fact, declining everywhere, except in the governments of Pultowa and Tchernigoff, where it appeared to increase. The places newly invaded by the cholera are Mohileff, on the Dnieper; Kherson, on the Black Sea; Vologda and Tver, on the road from Moscow and St. Petersburg; but in those places it is of a mild character.

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THE INFLUENZA IN THE PENITENTIARY.—The sickness in this prison is very great. The average number in the infirmary is about 30 or 40, but now it amounts to upwards of 100, and has been 130, the influenza being the chief cause. There are about 1200 prisoners there, but convicts are not sent now to the colonies, from some difficulty the Government has in selecting the spot. A few have been sent to Gibraltar and Bermuda, but others, to make room in the Penitentiary, have been sent to the gaols of Yorkshire; Wakefield has no less than 400, and Reading 40; where they will remain until their future destination is determined on.

OBITUARY.—Oct. 31, at Delhi, R. M'Intosh, surgeon, 42nd Regiment.—On the 15th ult., at Toronto, of typhus fever, Joseph Hamilton, Esq., M.D., aged 51, sixth son of the late Hon. Robert Hamilton, of Queen's-town, Canada West.

MORTALITY TABLE.

For the Week ending Saturday, Dec. 18, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	1946	1046
SPECIFIED CAUSES...	1943	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	629	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	131	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	178	157
Diseases of the Lungs, and of the other Organs of Respiration	657	333
Diseases of the Heart and Blood-vessels.....	52	34
Diseases of the Stomach, Liver, and other organs of Digestion	79	74
Diseases of the Kidneys, &c.	15	9
Childbirth, Diseases of the Uterus, &c.	18	14
Rheumatism, Diseases of the Bones, Joints, &c. ...	14	7
Diseases of the Skin, Cellular Tissue, &c.	2	2
Old Age.....	110	65
Violence, Privation, Cold, and Intemperance.....	58	29

TO CORRESPONDENTS.

THE "MEDICAL TIMES" may be procured by an order on any Newsman or Bookseller, or it will be sent direct by post from the Office of the "Medical Times" to Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Pound Five Shillings IN ADVANCE, which will free them for Twelve Months. Half-yearly Subscription, 15s.; Quarterly, 7s. 6d.

HOSPITAL QUACKERY AND OPERATIVE SURGERY. — "Senex" writes, calling our attention at length to the extraordinary quack advertisement of "Wakley and Co.," which, he says, has produced a wide sensation of indignation. He concludes thus:—"The profession must notice the new system of medical ethics so unblushingly introduced. I have shown *my* feeling on the subject, by at once giving up the *Lancet*, and mean immediately to propose its contumacious ejection from the reading club of which I am a member. If we stand a mean and deliberate insult of this kind, we shall deserve everything and anything that a faithless adventurer may find it worth his while to concert against us. We must hold no parley, suffer no compromise, and hold no terms, where confidence is under betrayal, and professional honour is at stake." There is much of important truth in our correspondent's remarks.

"S. H., Kensington."—We have paid attention to the alleged presence of cholera in London, and have no doubt that all the reports on the subject are without foundation.

"Pedro."—The authority of the Faculty of Physicians and Surgeons of Glasgow extends over four counties. We know nothing personally of the nature of the examination for the diploma. Oxford and Cambridge also are very inferior medical schools; but, as they enjoy the prestige of rank, and are celebrated for the good general education they impart, it is seldom that much is said in reference to their capabilities of imparting medical instruction. If a comparison were made between the two English universities and St. Andrew's, Aberdeen, as medical schools, it may be, as our correspondent intimates, that the latter would bear away the palm.

"Hippocrates, Newcastle."—The discussion in reference to the first cases of cholera in 1832 would be unprofitable; we must, therefore, decline inserting the letter.

"M. D., Glasgow."—The English College of Surgeons does not require apprenticeship; but demands of candidates for the diploma that they should have been engaged a certain number of years in the acquisition of professional knowledge. With the Apothecaries' Society an apprenticeship of five years is indispensable to the possession of the certificate.

"Mr. Stephen Gatwood,"—We must be permitted to use our judgment respecting the publication of the letter. A private communication shall be sent during the course of next week.

"Chemicus."—The paper "On a New Mode of Detecting the Presence of Arsenic" should have been authenticated, to ensure publication.

"A Union Medical Officer."—The facts had better be drawn up in a tabular form. Should our correspondent wish it, however, the letter shall be published without any revision.

"Snob."—The letter exhibits talent, but not prudence; we must decline its insertion.

"T. B., Birmingham."—The article on Chloroform came too late for insertion in the present number.

"Dr. Goodwin."—The question shall be answered in a private communication.

"A New Member of the College."—It would be imprudent to purchase a practice without first having ascertained, so far as possible, its value. No proprietor of a *bonâ fide* concern would object to a fair investigation.

"A Guardian" writes us a letter in which he expresses himself favourably towards an increased remuneration to parochial medical officers. He evidently, however, retains many prejudices. We would advise our correspondent to investigate the matter a little closer, keeping in view the precept, "Do unto others," &c.

"Spectator."—We have noticed the subject this week; and we hope that those who profess to be the friends of medical men will henceforth show by their actions that they are so. The coroner's subterfuge was a very disgraceful one.

"B. A., Oxon."—The paper shall receive an early insertion. We shall be glad to hear again from our correspondent.

"Medico-Chirurgus, Paddington."—The commissioners of police appoint the surgeons to the police force. We are not quite certain what salaries they receive.

"A Non-Professional Friend."—We are sorry that we cannot prove ourselves friendly by prescribing for the malady. It is a thing we never do; we would advise our correspondent to consult immediately some respectable medical practitioner.

"Dr. Wm. Buchanan."—The papers referred to shall be forwarded next week.

"A Student, St. George's."—"Chellus' Surgery," translated by South, is a valuable work.

"Incog., Stroud," is thanked for his communication in reference to the Gloucester Infirmary; it is probable we may make use of it next week.

"Mr. Batten, Coleford."—The letter came safely to hand.

"A Medical Assistant."—The remuneration is inadequate for the labour. We know not how the evil can be remedied.

"D."—We do not know the publisher.

"Sydenham."—Dr. Armstrong was rejected by the College of Physicians.

"Mr. Edward Challis."—The case is an interesting one, and shall receive an early insertion.

"A General Practitioner."—We are not acquainted with the intentions of the Government in reference to an incorporation of the general practitioners. The National Institute is in communication with the Home Secretary.

"Mr. George Sanford."—The Westminster Hospital School is closed. The reason assigned is to make way for improvements.

"Mr. Jennings."—The omission shall be rectified.

"X. L."—A part of the letter we cannot decipher, and, therefore, must request our correspondent to write again if he wishes us to answer what appears to be a question on some subject.

"Mr. Edward Joseph Mehain, 6, Atkinson's-buildings, Holborn."—The "gramme" is equal to about 15½ grains English. The liq. ammoniæ alluded to is that of the Pharmacopœia.

"Mr. G. W. Blanch, 3, Albion-place, Blackfriars-road."—The suspicious case of Asiatic cholera has been received.

"J. J." sends us an account, taken from the *Times* newspaper, of a man, in the 4th Royal Irish Dragoon Guards, eating in the course of a few hours a boiled leg of mutton weighing 14lb. 3oz., a peck of potatoes, half a peck of turnips, two pounds of bread; drinking during the time a gallon of ale. Our correspondent asks "those physiologists who have faith in the present doctrine of absorption, and who, therefore, regard the *thoracic duct* as the 'inlet for the fresh nutritive materials derived from the digestive process,' whether they believe that a mess of provisions, weighing not far off three stone, or that even one half or one quarter that quantity could, after it had undergone fluidification or digestion in the alimentary tube, be absorbed by the lacteals, and then squeezed through the mesenteric glands and thoracic duct into the left subclavian vein?"

"Medicus" writes us—"I am a member of the medical profession, and have been so this thirty-eight years; and never before have I witnessed, until of late, the badly written prescriptions that enter my shop. I will defy any one to make them out with safety; I think nothing should be written so plain as a prescription, considering the life of the patient is at stake. I had one a few days ago that I was obliged to turn away; most likely the person that brought it would take it to a chemist and get it made up by guesswork; they seem to take less pains in writing prescriptions than anything else; let us have them written in a plain and legible hand, with none of their fine flourishings and half-formed letters. No doubt many accidents have occurred from this neglect.

"Ita," in reference to Dr. Simpson and chloroform, says, "The fact is that Dr. Simpson is a very rare example of a man who has not forsaken the Temple of Science for the Court of Dives. He loves his profession, and labours for its improvement. No better proof of this than his perseverance in thrusting the use of chloroform in midwifery on the profession. It surely would be much more satisfactory if your correspondents, instead of their opinions, would give us some reasons against its general use. Let them tell us what those special cases, constitutions, &c., are, which forbid its employment, instead of favouring us with their assertions that such exist. Enough for me, and I should think every reasoning and reasonable man, are these unanswerable facts, that now, for nearly a year, ether and, since its introduction, chloroform have been continually employed in every hospital in Europe; that Dr. Simpson for the same time has used it incessantly in his extensive practice, and yet neither in one case or the other have we had one well-authenticated case of bad consequences having followed its employment. Age, sex, condition of body, disease—none of these have yet contraindicated its use. For the proof of this, ask every man you meet, whose opinion is worth the asking."

"Mr. Greatwood's" communication is in type, and will appear next week.

"Mr. Johnson's" letter shall also appear next week.

"Dr. Coglan's" "Case of Burn, followed by Death," is also postponed to next week.

Our press of matter is so great that we can only notice the receipt of Dr. Duesbury's communication.

"A Medical Practitioner," who complains of pecuniary injustice in the fee distributions of the Middlesex coroner, should avail himself of his legal rights as laid down in Lord Denman's celebrated judgment. We really have no space nor time to give to the many complaints that reach us on this troublesome subject. The remedy is in the profession's own hand.

"S."—The partition of diagnostic mistake in Liston's case is a more difficult matter than our correspondent fancies. Dr. Williams, who throws the blame on his colleagues, does not appear to have enjoyed the professional confidence of his friend Dr. Liston, and thus *his* fatal mistake, however curious, becomes the less extraordinary. It is an important fact for the annals of pathological research, that that learned physician's stethescope requires for any use it may possess, even under a double application, more decisive phenomena than those presented by an aortic aneurism the size of an orange pressing on the trachea. We suppose it was this peculiar quality of medical science, as evidenced by physicians of his acquaintance, that won from Sir Astley Cooper his celebrated "Thank God I know nothing of physic!"

We have received several letters complaining of what one of our correspondents calls "quackery under a medical authority;" we mean the "operative" exploits in a certain beggarly dispensary in Gray's-inn-lane. We have noticed the subject elsewhere, joining in the opinion that it is a case requiring professional cognisance.

"M. R. C. S."—who forwards us the decision in a County Court of Requests, adverse to the charges for medical visits—has not sent us all the details of the case.

"A Union Surgeon."—We quite concur in our correspondent's eulogiums as to Dr. Burton's letter in our last number; but we do not think that the recommendations of our correspondent in reference to a changed system of payment are judicious, or would serve the cause in their publication.

"M. D.'s" criticism on the diagnosis formed by Dr. Williams in Liston's case must stand over till our next number.

"Mr. Ross" has forwarded to us the memorial agreed to by the National Institute, which shall appear in our next number.

"A Neighbour" complains in strong language of non-performance of duty by the lecturers at the London Hospital School. The pupils, day after day, receive, and that sometimes after a troublesome journey, a notice on a black slate instead of a lecture, and though often of about equal value, scientifically, yet the disappointment is not in every case quite satisfactory. The Hall and College would do well to look after the certificates of this institution.

Letters and communications have been received from Mr. Spooner, Blandford; Mr. Newman, York; Dr. Lawrence, Aberdeen; Mr. Rock, Castle Blaney; Mr. Deane, Chatteris; Mr. Randolph, Milverton; Pedro; Hippocrates, Newcastle; M. D., Glasgow; Mr. Stephen Gatwood; Chemicus; A Union Medical Officer; Snob; T. B., Birmingham; Dr. Goodwin; A New Member of the College; A Guardian; Spectator; B. A., Oxon; Medico-Chirurgus, Paddington; A Non-Professional Friend; Dr. Wm. Buchanan; A Student, St. George's; Incog., Stroud; Mr. Batten, Coleford; A Medical Assistant; D.; Sydenham; Mr. E. Challis; A General Practitioner; Mr. Geo. Sanford; Mr. Jennings; X. L.; Mr. Edw. Jos. Mehain, 6, Atkinson's-buildings, Holborn; Mr. G. W. Blanch, 3, Albion-place, Blackfriars-road; J. J.; Medicus; Ita; Mr. Greatwood; Mr. Johnson; Dr. Duesbury; A Medical Practitioner; S.; M. R. C. S., &c.

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No. 431. **SUMMARY.** JAN. 1.

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ORIGINAL LECTURES.

LECTURES ON GENERAL PATHOLOGY,

DELIVERED TO THE

FACULTY OF MEDICINE

DURING THE PRESENT YEAR,

By PROFESSOR ANDRAL.

Reported for the *Medical Times* by D. M'CARTHY, M.D. Paris, &c.

SECOND PART. CHAPTER II.

SIGNS FURNISHED BY THE INVESTIGATION OF THE CIRCULATION.

These signs may be furnished by the exploration of the heart, the arteries, veins, and capillaries; the spleen, as an appendix of the circulating system, also claims some share of attention; and, finally, the constitution of the blood, and the state of the lymphatic vessels, are likewise, in disease, the source of diagnostic signs.

All the signs furnished by examination of the heart are not obtained by physical means. The latter are, no doubt, the most important; but we must also study those which are purely functional. Thus, palpitations or increased violence of the pulsations of the heart may accompany every morbid change of that viscus, without pointing to any one in particular. This symptom is sometimes more marked in incipient disease than in the more advanced stages of valvular alteration. Palpitations may also be merely a dynamic disturbance not connected with any anatomical alterations of the organ. Their cause, in such cases, may reside in a primary alteration of the nervous system, and be accompanied with oppression and vertigo, simulating disease of the heart; but in these instances the increased action is variable in its intensity and in its causes. Alterations of the blood, plethora, and anemia, *e.g.*, occasion, secondarily, disturbance of the nervous system, and also produce palpitations, sometimes of a violent nature, Palpitations are, therefore, a common symptom to organic and dynamic affections of the heart; and, in order to recognise the real nature of the latter, it is indispensable to have recourse to other sources of diagnosis.

Pain in the precordial region is usually attributed by patients to a morbid condition of the heart; but the pathologist should recollect that it may be merely neuralgia of some intercostal nerve, and also, on the other hand, that true acute pericarditis may be totally unattended with any pain. Endocarditis is still more frequently unaccompanied by suffering, nor is any usually observed in the various alterations of nutrition of the heart. Neuralgia of that organ is a disease the existence of which cannot be denied. As a sign of organic lesion, we consider palpitations as more important to the diagnosis than pain. We may also add, that we are not satisfied that the white patches of the pericardium, or the partial adhesions so commonly observed within that cavity, have not something to do with the presence of more or less tenacious pain in the præcordia.

The principal phenomenon in syncope is the arrest of the action of the heart. This we observe in the first place when that organ is primarily affected, as in pericarditis, or when air has been introduced accidentally into the veins (wepter); it is not so well demonstrated that polypous concretions within the heart can occasion this symptom. Secondly, we again notice syncope when, the heart not being primarily affected, a large quantity of blood is suddenly abstracted, or even fixed for a time in any distant part of the body, as it is during the application of the immense "cupping-boots," if we may use the term introduced into practice by Dr. Junod. Again, after too rapid delivery, after paracentesis abdominis, internal hemorrhage, or sudden emotion, producing great nervous disturbance or intense pain, and in hysteria, syncope is frequently met with. One variety of pernicious fever is characterized by the presence of this accident; and sometimes sudden syncope, which may terminate fatally, occurs as a unique and primary symptom.

We now turn to the history of the physical signs of disease of the heart and its envelopes. These signs are derived from four sources of knowledge, viz., inspection, palpation, percussion, and auscultation.

Inspection informs us of increase of size of the precordial region; and when the enlargement is considerable, it is always the result of disease. It may also lead us to recognise a greater degree of intensity in the pulsations of the organ, or even its displacement: thus, the apex naturally beats in the fifth intercostal space at about two inches from the nipple; but when the left ventricle is hypertrophied, the pulsation is observed to occupy a lower seat. Dr. Saunders considers epigastric retraction after pulsation of the heart as indicative of adhesions between the pericardium and the heart; we do not deny that such may be the case, but we cannot look upon the sign as occurring so constantly as Dr. Saunders is inclined to believe. In pericarditis attended with effusion the pulsations are said to be perceptible in a higher region than the dulness given by percussion. ("Aran Archives," July, 1844.) Ectopia of the heart is also detected by inspection; Harvey observed in an adult the movements of the heart exposed to view by the incomplete development of the thoracic walls, and showed this singular case to King Charles II.

Palpation leads us to recognise the intensity of the pulsations: we find them increased in hypertrophy and diminished in dilatation of the heart. We again find them diminished in syncope, in pericarditis, or when the healthy lung is interposed between the viscus and the thoracic walls. Abundant effusion in the left pleura, or excessive abdominal dropsy, may also occasion displacement of the heart, and cause us not to find its pulsations by palpation. This mode of diagnosis also permits us to ascertain the extent in which the pulsations may be felt, and their frequency, which is always increased in endocarditis, in considerable valvular insufficiency, in nervous disturbances of the heart, in great general debility, and in all cases where the animal heat rises above 38° Cent. (99° Fahrenheit). Palpation tells us, on the contrary, that the beats are less frequent in some forms of hypertrophy, in cerebral disease, in certain intoxications (for instance, after the exhibition of digitalis). This subject we will refer to more at large when we treat of "the pulse." Changes in the order of succession of the contractions of the heart may also be known by palpation, and displacements of the viscus by hydrothorax, pleurisy, or ascites. One of the signs furnished by palpation of the region of the heart is of the greatest value in the diagnosis of organic disease: it is that which has received the name of "purring tremor," and which always indicates considerable friction within the heart, and almost invariably denotes valvular disease. Hope, Dr. Stokes, and Professor Bouilland have also met with purring tremor in pericarditis. We have not had that good fortune. Laennec, who, during the last years of his life, betrayed a singular tendency to doubt the existence of anatomical alterations in conjunction with the physical signs of disease, admitted that purring tremor might be produced by mere nervous disturbance; this opinion, however, we cannot possibly partake of.

Percussion, introduced into science by Auenbrugge and Corvisart, was, it is singular to say, hardly noticed by them as a means of coming to a correct diagnosis in diseases of the heart. It is chiefly to Professor Piorry that the credit is due, of having shown the important results to be obtained from that method in disorders of the central organ of circulation. In the healthy adult the precordial region is perfectly dull on percussion in an extent of two square inches; around this dull region, strong percussion yields also a certain loss of resonance in about one inch and a half in every direction. Near the sternum the dulness is less perfect, and corresponds to the right cavities of the heart; in this region, also, we should add that less resistance is felt by the finger during percussion. The presence of the emphysematous lung between the heart and the thoracic walls diminishes the dulness; but it is increased by effusions in the left pleura, by indurations of the lung, and by tumours of the mediastinum, such as cancer, abscess, or aortic aneurism; disease of the heart itself, or of its envelopes, also has the same result. Effusion in the pericardium causes dulness in a pyramidal region, with its apex at the upper part of the sternum, and its basis inferiorly; this dulness may be displaced in changes of position of the patient, when the effusion is not very considerable. Increase of size of the heart, whatever its cause, also produces augmentation of the space in which dulness exists during health; thus, accumulation of blood in the heart, eccentrical hypertrophy (dilatation), produce increased dulness. In enlargement of the left cavities, the dulness is chiefly found towards

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the fifth, sixth, seventh, or eighth ribs; and when the right side of the heart is hypertrophied, it is towards the inferior part of the sternum that the maximum of dulness is observed. As to the delimitation by percussion of the various cavities of the heart, Professor Piorry asserts that it may be obtained by plessimetry; but further researches are necessary in order to satisfy us upon this point.

In our next lecture we will study the semeiotic signs furnished by auscultation in diseases of the heart.

A COURSE
OF
LECTURES ON SURGERY.
BY
SAMUEL COOPER, Esq., F.R.S.,

Professor of Surgery to University College, London; Consulting Surgeon to London University Hospital, &c.

Lecture XXII.

Gentlemen,—A class of inflammations arising from cold, exceedingly troublesome to the patient, and often difficult to heal, without being in themselves dangerous, are chilblains. They occur most frequently on the toes or edges of the feet, on the heel, the instep, the back of the hand; sometimes the end of the nose or ear, and the parts about the metacarpus, suffer. The inflammation is of an irritable, but languid, character, and, the circulation being weak in the parts attacked, the reparative power is low, and requires stimulation. It may be observed that in many respects a similarity is remarked between the effects of an extreme degree of heat and of intense cold. In the simplest kind of chilblains there are merely redness, swelling, heat, and itching of the parts. In the second degree of severity there is more heat, pain, and swelling, and more or less deprivation of the use of the part, and, when on the instep or back of the hand, the swelling is very great, and the patient is rendered lame. In the third degree vesicles are formed, in consequence of the accumulation of a dark bloody serum under the cutis, the surface of which frequently ulcerates, and the sores thus formed are very painful, full of an ichorous matter, very deep, and difficult to heal. They present a greyish and often fungous appearance at bottom. The worst cases of chilblains are those in which the bloody vesicles are followed by gangrene. Predisposition to chilblains is met with in persons of delicate constitutions, and in those who have been brought up tenderly, especially persons subject to scrofula, and those who perspire much in the feet. It is found that exposure of a part to intense cold while in a state of perspiration is more likely to be followed by chilblains than its exposure to the same degree of cold when it is simply warm. Of itself cold cannot produce true chilblains. The treatment is pretty well understood, and generally agreed on. If you have them in the first and second degree of severity you are to use friction, and rub well with the camphor liniment, or the soap liniment, to every five parts of which you may add one part of the tincture of cantharides; the liquor plumbi diacetatis, or a mixture of two parts of sp. vini camph., and one part of liquor plumbi diacet. Abroad, they immerse the parts in ice-cold water two or three times a day, rub them dry and cover them with a leathern sock; but this method is not universally applicable, and must not be used with patients disposed to phthisis or gout, nor with delicate females. I have already observed that the inflammation which accompanies chilblains is rather languid, and, as they have not much power of reparation, they therefore require stimulants. Ulcerated chilblains require stimulating dressings, as a solution of the nitrate of silver, Peruvian balsam, a mixture of liquor plumbi acetat. and liquor calcis, or a lotion of chloride of lime, which is recommended by Lisfranc; this may be applied by means of lint. Some practitioners are very partial to a poultice in the first instance, made of oatmeal with some port wine, and they think it is of great benefit. The treatment of chilblains in a state of mortification is conducted upon the same principles as in other instances of gangrene.

The subject next for consideration is that of wounds. By a wound is meant a breach in the continuity of the soft parts, produced suddenly by an external cause, and generally attended in the first instance with hemorrhage and pain. Such is a general definition of the term; but some circumstances occasionally arise requiring it to be understood in a modified sense. Breaches of continuity are thus sometimes made by the violent action of the muscles, which tear themselves, break the bones, or rupture the tendons to which they are joined. Wounds are characterized either according to the description of weapon by which mischief has been done, or upon the circumstance of venomous matter having been infused into the part, or from their own nature and locality. Incised wounds or cuts are simply divisions of the textures; being made by sharp instruments, there is no contusion or laceration; the tendency to inflammation, suppuration, and mortification exists, therefore, in a very low degree, as compared with other wounds. The surgeon has only to prevent the wound from gaping; that is, to bring the opposite edges of the wound together, and to maintain them in this condition a short time, and they will grow together again. Danger in such cases, where it exists, is the consequence of the loss of blood by which such a wound is sometimes attended. Punctured wounds, as the stabs of pointed weapons, bayonets, lances, daggers, &c., or large thorns or nails, introduced suddenly into the flesh, injure the parts far more than simply incised wounds. They are generally inflicted with force and violence, and often penetrate to a great depth, injuring the viscera, bloodvessels, and nerves; and, as many weapons are found with a diameter increasing with the distance from the point, their entrance to any considerable depth forces the fibres asunder like a wedge, and so causes a serious degree of rupture and contusion. Besides this, you have contused and lacerated wounds produced by some blunt substance impelled with violence against the body; this division includes gunshot wounds, a most interesting class, which will enable you to understand the nature of contused wounds generally. Every solution of continuity made suddenly by a blunt body must produce contusion and laceration, and for this reason some bites, not venomous, come under this division of wounds. Another class of wounds are those which are produced by the bites of some serpents and the stings of certain insects. These are complicated by the presence of a venomous fluid or matter in the part. Under this head rank those cuts and pricks received by the surgeon in dissecting dead bodies, in handling infected instruments, or dressing buboes and chancres.

The most dangerous, however, of all venomous wounds met with in this country are the bites of the viper and of rabid animals. There are many wounds, as I have said, which derive their names from their situation in the body; thus we have wounds known as *wounds of the head, face, chest, throat, abdomen, lungs, liver, &c. &c.* Wounds may further be regarded as simple or complicated. I have mentioned incised wounds as the most simple, but they may be complicated in various ways, as by the lodgment of foreign bodies or of irritating matter in the part, by the loss of a part of the substance, an attack of hospital gangrene, phlegmonous erysipelas, traumatic tetanus, and many other circumstances, all of which will cause, if necessary, the surgeon to deviate from the treatment requisite for a simple wound. All wounds of considerable size or depth are followed by symptomatic fever in a higher or lower degree. The extent of time in which this comes on varies: sometimes it comes on very early, but usually from sixteen to thirty-six hours after the injury. At its appearance the skin becomes much warmer, the heart and arteries increase in the frequency and, generally, in the strength of their action; the patient is thirsty, has an anxious expression on his countenance, and his powers of digestion are impaired. It is of the greatest importance that the practitioner attend to the true character of the fever, as being of the true inflammatory or of the asthenic type, since the loss of blood which may be tolerated by the system in one case will be sufficient to destroy in another. The prognosis of wounds depends on many circumstances and combinations—on the size, the violence attending them, the reparative power of the part, as well as on the age and the general state of constitution of the patient. The mere size of a wound will often be a source of great danger. I have seen a surgeon obliged to remove a large adipose tumour of the extent of twenty-five pounds weight. Such an operation may, without injuring any part of importance, of its mere magnitude, occasion death: on this account amputations of the thigh are so much more dangerous than of other limbs. Wounds attended with contusion and laceration will be much more likely to cause death than a simple incision, even should the latter be of far more considerable extent. Injury of large arteries will be sufficient to destroy life in a very short time; and you should be told that great dangers often attend wounds of smaller arteries, where they are out of the way and difficult to reach; and often under these circumstances, at the same time, there is a greater disposition to bleed in these small vessels, as in those of the abdomen, which are very favourably situated for hemorrhage, and where the blood becomes a very great source of irritation. I explained that incised wounds were the most simple description, and more readily healed than wounds complicated by contusion and laceration. Many of them, however, from their situation or other causes, are highly dangerous; thus, for instance, incised wounds of the throat involving the larynx and trachea. The first effects of an incised wound are, more or less, bleeding, acute pain, and separation of the textures cut. From the vast number of bloodvessels with which every part of the body is supplied, it is impossible to prick the skin with the finest needle without coming upon one or more ramifications of vessels containing blood, which issues from the opening. When, instead of a needle, the cutting instrument has width sufficient to divide, in penetrating, an extensive portion of the flesh, the consequences are more marked, as not only a greater number of bloodvessels are involved, but most likely some of these of magnitude; the hemorrhage will then be profuse, and may be fatal. The pain of a wound is dependent on the kind of instrument with which it is inflicted, its extent, and also on the state of mind of the individual at the time of sustaining it. Soldiers and sailors in the heat of an action are often severely wounded, but are not conscious of the fact until the heat of the action has subsided, or till loss of blood causes faintness too considerable to be longer disregarded; while, on the other hand, a person about to undergo a surgical operation is conscious, in the highest degree, of the division of textures about to take place, having the prospect before him, perhaps for a long time beforehand, and his pain will be greater.

The separation of the edges of a wound is the result of the natural elasticity of its textures. It is true that the dividing instrument, acting like a wedge, separates the edges from each other; but the gaping from this circumstance alone would be inconsiderable, were it the only cause. The two edges are sometimes separated by a space as wide as several inches from each other, and the elasticity natural to the skin and other tissues, as well as the contracting power of the muscles, is a principal cause of such separation. The elasticity of a part, however, is not always the measure of separation in incised wounds; the degree of tension at the time of the injury has somewhat to do with the result. There are four principal indications in the treatment of incised wounds. The first and most obvious is to stop

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the hemorrhage, since, this overlooked, the patient must bleed to death. The second is to remove foreign bodies; you are not justified in closing a wound while any foreign body remains in the textures. It is true that cases do very seldom occur where incised wounds contain extraneous matter; still they happen sometimes, and the caution must not be neglected. The third indication is to bring the edges of the wound together, and to keep them quiet until the process of healing has firmly and permanently united them. Fourthly, you are to attend to the patient's general health, to keep the bowels open, and to watch for the appearance of febrile disturbance.

CLINICAL OBSERVATIONS ON SOME OF THE MORE FREQUENT DISEASES OF CHILDREN.

By W. HUGHES WILLSHIRE, M.D. (Edin.), M.B.S., Physician to the Royal Infirmary for Children, &c.

(Continued from p. 190.)

GENTLEMEN,—I have now to pass to the consideration of the modes of treatment I would advise you to adopt in the various forms of infantile diarrhœa. You have seen how different are these forms at the extremities of the scale, and can therefore readily believe your treatment will have to be as opposite. As from the simplest description of mere sympathetic diarrhœa up to the severest form of entero-colitis, you may have many kinds of combinations and modifications of the more general types which I have laid down, so will your therapeutic procedure have to assume a modified and mixed character. Whilst in the very simple forms of all you will have to take care that you do not do too much in the way of drug administration, lest you convert a very mild and temporary disorder or, rather, inconvenience into a prolonged and severe inflammatory affection, at the same time you will have to be upon your guard lest that which has appeared to you of no account shall be the forerunner of, and merge into, by almost inappreciable transitional changes, inflammation and ulceration of the larger bowel. This double care, as it were, of opposite contingencies is that which renders the treatment of the simpler diarrhœas of more importance than is often supposed.

In most cases of diarrhœa the first thing offered to your notice is the actual condition and frequency of the alvine dejections: these are almost always first alluded to by the parent, and for some peculiarity in them the child is brought to you. In the more severe case of acute entero-colitis, and in the prolonged or chronic ones, however, the extreme emaciation may be the first thing that you notice, since you may not see the patient until such a state has supervened, and for the "falling away," in fact, you are often told the child is presented to you. Here, then, you learn of the diarrhœa, upon inquiry, in a secondary way. But in both these cases you make yourself acquainted with the state of the bowels before any consideration is paid to the cause of the disease. That state being determined, then, and after inquiries as to the duration of it, you take care before you begin any treatment to make all inquiries as to the origin of the disorder. In children, before they are six or seven months old, these inquiries will be chiefly limited to the nature and quantity of the aliment it is receiving, and to the exposure of it to great heat or cold. Beyond that period the state of dental evolution becomes added as a point for your investigation, and after that the likelihood or not of there existing intestinal entozoa is superadded to the others. Combined with all, however, is the *epidemical* influence to be regarded at certain seasons of the year. According, therefore, to the probability of either of these causes existing, so will your therapeutic procedures vary, and also in relation to the type of the disease they have produced. Still, whatever may be the cause, whatever the type, of the disorder, there are certain general rules applicable to all, and which I shall at once allude to.

In every case of diarrhœa there exists local intestinal irritation of some kind or other, whatever may be its grade; therefore, in your treatment, care must be taken that that irritation be not increased. The already existing irritation is in most cases that of a mucous membrane and its follicles; irritation of such structures is always the more amenable the more we can avail ourselves of local treatment; and therefore you must lay stress upon this, and not rely alone upon general constitutional procedure. The seat of the irritation, especially in the severe and prolonged cases, is on the mucous surface of the lower bowels; therefore, so far as actual local treatment goes, the administration of remedial agents by the rectum, and the acting on the surface of the abdomen by palliative and soothing measures, are never to be forgotten. The persistency of diarrhœa tends to exhaust the vital powers in a twofold way—by the discharge it keeps up, and by the irritation being translated or radiated to the stomach and upper bowels, by which the aliment is rejected from the former, or, if retained, by the digestion being imperfectly, or not at all, performed both in it and in the latter; and, therefore, there can be no refection to the "wear and tear" going on: the candle is burnt at both ends. Lastly, the more severe forms not only exhaust the vital energies by their own nature, but generally originally occur in constitutions naturally weak and delicate.

Besides the principles guiding your treatment deducible from these propositions I have already hinted at, you will discover one or two others, if you think a little more. You will see that diarrhœa is not to be treated by purgatives—local irritants often of a severe character—unless you have reason to believe that there is retention of something in the tube which keeps up or causes the local excitement, and which you can have no chance of alleviating, unless the retained object is removed. You will find, also, that decided antiphlogistic and depressing measures cannot in any but rare cases be had recourse to. I lay stress upon your not being guided by the rule of at once giving agents exerting a cathartic action in diarrhœa, because, although apparently it is strange to follow such a practice, yet such a one is the basis of the therapeutics advised by many writers. I say *strange*, because *à priori* there is already too much intestinal disturbance; why, then, further increase it? Yet, as I have said, doctrines have gone abroad in which it is taught that, by the mere temporary exciting action of the cathartic, the more permanent one causing the diarrhœa is to be cured. By such and analogous measures it is said by Legendre that "we free the internal face of the digestive tube of the layer of altered mucus which lines it; we energetically modify its vitality, and especially the secretive action of the mucous follicles; we substitute a more or less active irritation, itself tending to terminate rapidly, for a chronic, obstinate, secretive irritation. We therefore perfectly agree with M. Gendrin in regarding emetics and purgatives as the most efficacious remedies in the cure of intestinal diacrises." To the general doctrine of purgation in the treatment of diarrhœa I disagree entirely, but of course must with every one admit that in some of the mucous varieties, as I shall afterwards explain to you, it will be often necessary to put it in force, as also under the circumstances I previously mentioned; and I freely admit, also, that the value of emetics is often great in the extreme. Still you can see the difference between such modified practice and the adoption of purgation as *a rule* in diarrhœa. I strongly advise you to read the remarks of Stokes (a), Graves (b), and Copland (c), bearing relation to this point, so far as regards adults, at least, and you will rise from their perusal, I am sure, with information of extreme value. "Much mischief may arise and discredit be reflected on the practitioner by following blindly the dictates either of unsound theory or worthless authority, instead of being guided by principles of common sense. I have repeatedly known persons who have been accounted ignorant, but who were not necessarily without sound sense, complain bitterly, and lose all confidence in the medical attendant and hopes of recovery, when directed to take cathartics after, as they have expressed it, their insides had been nearly purged out of them."

With regard to the inability of our being generally able to employ antiphlogistic measures, although certain forms of the disease are inflammatory, this is founded on the peculiar nature of that inflammation, the state of constitution it occurs in, and the vital depression which it is almost inevitably accompanied by, or to which it leads. Upon this point I may quote to you the words of Rilliet, who says, "We must reserve debilitating measures for a small number of well-marked cases—that is to say, for those in which the disease at the onset is accompanied with fever or abdominal pains, happening to an older child, whether as a primary disorder or as the sequence of another affection which has not left behind depression of the vital powers. In such cases we may apply from four to twelve leeches to the abdomen or to the anus, but must take care that the loss of blood be proportionate to the power of the child; at the same time we should apply emollient cataplasms to the abdomen and give demulcent drinks. It is rarely the case that we have necessity a second time to have recourse to the above medication; the disease assuming a chronic aspect, we must renounce debilitating means, which will become hurtful." From these remarks you may get hints available on the points I have alluded to, but some of them must be very cautiously received.

In all cases of diarrhœa occurring in infants and very young children, not yet freed from napkins and other similar recipients of their evacuations, you must never forget to impress upon the nurse the absolute necessity of very frequently changing them. Unless this is done you will have a complication of the diarrhœa to deal with, very troublesome to yourself, and, perhaps, of very serious import to the child. You will have erythematous inflammation of the thighs, nates, &c., induced, which may proceed to ulceration. Every time the diaper is removed the child should be gently washed with tepid water, and wiped quite dry with a piece of old soft linen; but all this must be done without any rough scrubbing of the parts. Should the latter have become irritated previous to the re-application of the diaper, they should be touched over with the powder-puff. On the Continent they use for this purpose bycopodium powder—the sporules of bycopodium clavatum—and there they have a very high opinion of its virtues, and consider them far beyond anything else. Bouchut says water glides over the skin which is covered with it as it would over oil-silk; Sobernheim strongly recommends it; and Rosenstein and Vogel, for the ulcerated state, advise it to be made into an ointment with the oxide of zinc, and applied to the parts. I agree with the writers who deprecate the use of fatty matters in these cases, and prefer the use of a lotion of the sulphate of zinc in rosewater. Bouchut recommends a very dilute solution of the bichloride of mercury.

In those cases of diarrhœa complicated, in older children, with prolapsus of the rectum, you must enforce upon the nurse the fact that the child is not to be allowed to sit upon a *low* stool or chamber utensil in performing the office of defecation. In very bad cases the child should evacuate the bowels in the recumbent dorsal position in a bedpan; by this means the lower bowel will be prevented getting into the habit, if I may so call it, of coming down, or, if it does, it is far more easily put up again. On its protrusion, it should be gently washed after each motion, at first with tepid, after a day or so with cold, water, in order that all remains of irritating matters may be removed from its tender and irritable surface. Care must then be taken that, as soon as possible after every "fall," reduction be gently performed. Often you will find the application

(a) "Lectures," American edition, p. 500.
(b) "Clinical Medicine," p. 73.
(c) "Dictionary," Intestines, p. 587.

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of a lotion of alum or of sulphate of zinc, or of the tincture of the sesquichloride of iron, will be of great avail. Anything further I might say upon this point, however, belongs to the subject as a separate disease, to be separately treated, whether medically or surgically.

In proceeding to treat any special form of the disorder, you, of course, as I have told you, will endeavour to find out its cause; and your attention in very young children will be chiefly directed to the states of alimentation and evolution of the teeth. From imperfect performance of either of these offices you may trace, as you now know, all forms of the affection; and, therefore, your treatment, of course, will have to be modified; but these important offices must be first attended to, or no good result can be expected from your interference. In a child still being nursed, therefore, make all inquiries as to whether any of those vegetable aliments I previously referred to are at the same time being given to it; if so, stop them at once, and have the child confined to the milk of the mother. Inquire, also, whether the mother—if the child be several months old—has begun menstruating again, or has profuse leucorrhœa, or if she has reason to suppose herself pregnant; if so, the milk will suit her infant no longer. This will become more particularly necessary to be attended to when the diarrhœa has been obstinate for some time past, and still continues so. Under such circumstances it would be necessary for you to advise the adoption of one or other of these things—to change the breast milk, or at once entirely wean the child, and feed it upon food conformable to the state of its dental development and other circumstances. Sometimes, in the better classes of society, you can effect the former with marked benefit to the infant, the diarrhœa ceasing, and the child gaining flesh, as new and better sustenance is afforded it. It may be necessary even to advise another such change, if the new milk does not seem to agree with it. M. Donné says he has thus changed the milk five or six times before he could accomplish his object. In the lower classes of society this will be impossible; you will then have to feed the child artificially, and the description of the food which will suit it best cannot always be foreseen. The first thing which will influence you in your choice will be the want, or an abundance, of teeth. Upon much relative to the diet of infants and children I have already spoken, (a) and therefore shall be more concise in what I have to say now. As a general rule you will find that a milk diet is the better; the milk may be given either boiled or unboiled, according as it suits the child best. Sometimes you will find it rejected when boiled, and retained when not so, or the converse may happen; to this may be added isinglass, or gelatine pap, or for elder children boiled milk and ground rice.

(To be continued.)

(a) *Medical Times*, vol. xvi., page 248 *et seq.*

ORIGINAL CONTRIBUTIONS.

THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

By GEORGE CORFE (Author of "A Popular Treatise on the Kidney," &c.), of the Middlesex Hospital.

[Illustrated by Portraits of Cases.] (a)

(Continued from page 195.)

HYSTERIA.

When I was prosecuting my studies at the Salisbury Infirmary, there resided in the town a near relative of mine, who was a shrewd, clever person. In the circle of her acquaintance was a lady, a spinster, who had arrived at that equivocal age for marriage, forty-five, who was possessed of limited means, but who was, moreover, troubled with some kind of "*fits*" occasionally. My friend invited her to pass a few weeks in the town, at her house, which was accordingly accepted; but very shortly afterwards these "fits" appeared, to the great annoyance of her hostess. But as they recurred again and again, and did not seem to excite any distress on the part of the patient, so they likewise ceased to cause any alarm to the lady of the house. At length, on one occasion, when the visitor went to lie down in the forenoon, preparatory to a fit, my friend seized the opportunity by saying, "Well, my dear Miss ——, if you are going to have a fit to-day, I'll lock you up in your bedroom, and go out and spend the day with Mr. and Mrs. Arthur ——;" which she accordingly did, and returned to her patient in the evening, whom she found quite well, but highly chagrined at the treatment she had received. Nevertheless, she had so far conquered the "fit mania," that we never heard of any more of such attacks, during the remainder of her residence in the town. Now, had a medical practitioner exercised this, apparently, cruel treatment, he would doubtless have received his congé, and would never have been allowed to set his foot on the threshold of the door again. That morbidly indolent state of mind, which induces and encourages these attacks, also gives rise to that slothfulness of body which is oftentimes so bewildering to the practitioner, that he scarcely suspects the disorder, but readily catches up the notion that there is spinal disease, and treats his patient accordingly. Whereas these females begin by *thinking* they cannot walk, because they *do not* walk, and then the mind is so obtuse that they *will not* walk, but lie in bed for days, weeks, nay, even for years together. I feel assured that the disorder is not bodily but mental; in proof of which they never exhibit so much annoyance when they are made to walk, as they do when you charge home to them such accusations as these, "You are ill-tempered, and won't try to exert yourself;" "This is laziness, obstinacy, and determination to resist all efforts to exercise your legs;" "I should think that you are of a sulky disposition," &c. They pout, swell, boil up, and oftentimes burst out into a violent fit of crying, which I always encourage, by telling them that it will do them good; and so it assuredly does, for, their passionate feelings having thus vented themselves, they become more tractable and more manageable, and at length they really strive to assist you in your endeavours to promote their convalescence, and sometimes finish by expressing much gratitude for your arduous and successful labours, and kind though rough treatment of their bodies. I am well aware that these remarks will not be very favourably received by some of my medical readers, but I can only add, that if I saw through such a case, and felt that the above line of practice was absolutely required, I would rather take my leave of the house and family altogether than I would pander to the wretched state of mind and body of such patients, by dosing them with fetid gums, ether, camphor, ammonia, valerian, &c. &c., and thereby encourage, indirectly, the disorder, fill a long drug-bill, and lead the friends to suppose there was disease, when conscience plainly whispered in the heart of the practitioner there was none. Such trimming policy is beneath an honourable mind, and finds no encouragement there, nor is it fostered, but in the soil of a base and sordid disposition.

CHOREA.

It is useless to occupy the reader's attention with an account of this singular disorder of the nervous system, and especially as I have not much information to give upon the subject, beyond what is already known by the profession; nevertheless I may take the opportunity of remarking here, that the oldest person whom I ever saw with this disease was recently a patient in this hospital, under Dr. Seth Thompson. She was a married woman, twenty-eight years of age, and had been frightened by a strange cat jumping on her back. The excitement of the nervous system was more alarming than I ever remember to have witnessed in aggravated cases of this nature. But the violence of the symptoms rapidly subsided under the steady and repeated exhibition of tartar emetic, in large doses. The Doctor commenced with half a grain every hour, for eight or ten successive doses, and then he continued it, in the same quantity, every four, and subsequently every six, hours, when she obtained tranquil and refreshing sleep, and gradually improved under this treatment alone, and left the hospital perfectly well.

I may just observe that I have since had occasion to admire the same successful line of practice adopted by this gentleman in other cases of cerebral excitement, amounting almost to mania. One case, especially, is before my mind's eye: it was that of a gentleman's servant, who was brought here in a state of the greatest excitement. There had been various moral causes to produce this disorder, but when he arrived here we found him most unmanageable, so that we were compelled to use severe but firm language, and he was thus persuaded to keep in bed without any restraint from straps, strait waistcoat, &c. &c. He now commenced the tartar emetic, in the same doses as the female patient, and at the same intervals, when the stomach became nauseated after five grains had been taken, and he obtained eight or nine hours of tranquil sleep, and awoke quite rational and calm, and his convalescence went on favourably from that time. He was ordered a purgative also of calomel and colocyth, which tended to relieve his head. He has since returned to his master's employment, and continues to be quite healthy, with the exception of occasional attacks of bilious headache.

PARALYSIS AGITANS. PARALYSIS A VENENO.

The former of these two diseases is only met with in advanced life, as its analogous affection, chorea, is only met with in youth. It is needless to occupy any space upon a subject which is so little understood, and the opportunities for studying which are so rarely met with in hospitals.

But under the head of the second title we might enumerate palsy from imbibition of lead, mercury, arsenic, &c. &c. In the former of these metallic poisons the countenance assumes a dingy, fawn, or dirty fawn colour, the intellects become impaired, and the gait is awkward and unequal, and there may probably be found palsy of some of the extremities; the paralysis is usually most observable in the right hand (if he is a right-handed man, as a house-painter), and the wasting of the muscular substance is most apparent in the adductor pollicis and extensors of the hand and wrist. The gums, if there exist any tartar on the teeth, are always tinged with a pale blue line in such patients; but if the tartar is absent, the coloured line is never present, at least, in any marked degree. This appearance, and the arguments in favour of the presence of a blue gum, being a test of the existence of lead in the system, are severally entered into, and ably discussed, by our scientific dentist, Mr. Tomes, who has been at much pains to ascertain how far the blue gum may be relied upon as a morbid product. I must, therefore, refer my readers to the sensible observations of this gentleman, which are given in a series of lectures, delivered at the medical school of this hospital, in 1846, and which are now in the course of publication.

There is an excellent pamphlet by a non-professional gentleman on the subject of prevention of lead colic, by means of the sulpho-vinic acid, taken in the form a drink, the mode of preparing which he there details. Some such formula is used by the men employed in a white-lead manufactory in Lambeth, but the masters find it necessary to lay down compulsory rules, in order

(a) These portraits, which are painted from the life, by that eminent artist, George Foggo, Esq., are to be seen in the museum of the Middlesex Hospital School of Medicine, a woodcut being deemed inefficient to carry out the peculiar features and tint of each countenance.

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to keep the men to its daily use, though the latter state, that as long as they adhere to this beverage, even in the hottest summers, a period of the year most favourable for the production of colic, a case scarcely ever occurs amongst 100 men. The form here alluded to is used by the author of the above paper in a large white-lead manufactory at Manchester, and during the first year of its trial in 1840 there had not been a single instance of colic amongst 200 men.

The disturbance of the mental faculties, in constitutions impaired by lead poison, is generally the result of slow ramollissement of the brain and spinal cord; fatuity, loss of memory, epilepsy, and premature decrepitude are usually the sequelæ of this and other forms of slow metallic poisoning. We have had several instances of palsy from mercury in water-gilders, in whom iron, sarsaparilla, shower-baths, and slight shocks of electro-galvanism have produced striking benefits. The last case occurred amongst Dr. Mervyn Crawford's patients; and the above treatment so far benefited him that he left the hospital with an intention of resuming his work, although he was strictly charged to leave the trade and obtain his livelihood by some other employment. The only case of paralysis from arsenic, taken as a poison for a suicidal purpose, which I have witnessed, occurred many years ago. Sarah Harris, aged twenty-two, took about a drachm of arsenious acid, in consequence of disappointment in courtship, and was brought here in a few hours afterwards, and admitted under Dr. Hawkins, January 7. The surface was cold; extremities livid; pulse scarcely perceptible; and, in fact, she appeared to be rapidly sinking. She had vomited some dark fluid before admission, it was stated. A warm bath, sinapisms to the epigastrium and feet, with some mild stimulants, were administered, when she gradually recovered from this state of collapse, and ultimately became convalescent from all the acute symptoms of gastritis which supervened, by the repeated application of leeches to the region of the stomach; but, when recovery was so far advanced as to permit her to dress herself, it was found that the lower extremities were so feeble that she was unable to stand. These paraplegic symptoms increased week after week, so that, although her general health had become tolerably good, yet, at the expiration of two months from the time that she committed the act, she had palsy and complete anæsthesia of both lower extremities. She was discharged, and subsequently underwent a regular course of electricity three times a week, when the power of the lower limbs gradually returned, and she walked to the hospital to offer us her thanks, having regained the perfect use of the legs.

As I may not have occasion to allude to the influence of mercury upon the system in any succeeding pages, I will take this opportunity of observing that for many years past I have noticed a singular peculiarity in the gums of those patients who are taking mercury *before* ptyalism presents itself. I requested my friend Mr. Tomes to investigate the subject amongst the dental patients under his care, and that gentleman has described the morbid appearance in so concise a manner that I cannot do better than transcribe his clever observations, from a recently published lecture on diseases of the gums.

"In salivation produced by mercury the effect is first discernible upon the gums. Some hours previous to the coming of the metallic taste, and to the fetor of the breath, and also to the soreness and discomfort which mark the influence of mercury on the system, the gums show indications that these conditions are about to appear; in fact, the patient will in a few hours be salivated. The state of gum I am about to describe is, in fact, a premonitory sign of ptyalism, for should it appear, and the mercury be immediately discontinued, yet salivation will come on. The sign is this: the adherent portion of the mucous membrane of the gums assumes an opaque white colour, contrasting strongly with the non-adherent portion, which preserves its natural hue or becomes red. The free edge of the gums is moveable, but that part which lies over the alveoli is firmly tied down to the periosteum; and, as the edges of the alveoli present a festooned line, so the whitened mucous membrane presents a corresponding festooned line. Again, where the mucous membrane is loosely reflected from the gum to the cheek, the natural colour is preserved. The whiteness of gum is produced by an increased secretion of epithelium, which, from being thicker and more opaque, renders the colour given by the vessels to the subjacent tissues less apparent.

"The surface of the mucous membrane, when deprived of epithelium, is studded over with innumerable small conical elevations, or papillæ. The thickened epithelium is readily rubbed off the tops of the papillæ, while it retains its full thickness in the hollows between them; thence, if closely inspected, the gums will not be seen to present a uniform white hue, but a mottled aspect, and this because the epithelium is thin over the papillæ and thick between them, and therefore more colour will show through at one part than at another. With the increased thickness there is a decrease of tenacity between the scales that form the epithelium, for the surface may be much more readily rubbed off than when in its natural state.

"This curious and useful premonitory sign of coming ptyalism was, I believe, first noticed, and its value pointed out, by Mr. Corfe; at all events, he first drew my attention to the fact, and I am not aware that it has been described by any author. Since, however, Mr. Corfe mentioned the result of his observations as to the constancy of the sign, I have verified for myself its presence in all cases of salivation that have come under my notice, and from these I have written the foregoing account.

"If you would make use of this indication in your practice, it will be necessary that you should carefully note the state of the gums at the time the mercurial treatment is commenced, for it is quite possible that other agents may produce a similar state of gum, and that such may exist previous to the exhibition of mercury." (a)

The concluding remarks are important, inasmuch as I have frequently noticed that agents which stimulate the glandular system on the one hand, or the mucous surfaces on the other, have a tendency to produce the same appearance on the gums: thus I have noticed the change in patients under the influence of iodine, and in those who have taken repeated doses of croton oil, colchicum, &c. Nevertheless, one point is quite certain that, if the gums are observed before mercury is given, and no such white line is visible, its appearance is a sure forerunner of ptyalism, and presents itself twelve or fifteen hours before the individual is sensible of a "sore mouth." An interesting and highly practical question then arises out of this fact: Is it necessary to continue the use of mercury to the same amount when this line shows itself, as before its appearance; or, in other words, is actual ptyalism necessary to satisfy the practitioner that the system is under the influence of this therapeutical agent? I believe that it is not necessary, and that, when the white line appears, the power of the remedy has already produced its influence over the inflammation, for the cure of which it was exhibited, so that the patient may be kept in a state of gentle mercurial erethism, without suffering from the too often frightful forms of ptyalism which the repeated doses of mercury produce. A case of acute endo and exo carditis lately occurred in which the constant use of calomel with blue pill during fifteen days failed to produce ptyalism, yet the white line above described was very marked after the first two days of the administration of the mercury: the lad gradually progressed towards a shattered convalescence. There was an attrition, exo-cardial sound, and a deep endo-cardial murmur throughout the first fortnight of his illness; the former disappeared, but the latter never left the ventricular sound at the expiration of six weeks from his attack.

(a) Lectures on Dental Physiology and Surgery, delivered at the Middlesex Hospital School. By John Tomes, Esq., Surgeon-Dentist to the Hospital.—"Medical Gazette," p. 571, 1847.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meetings of Dec. 13 *and* 20; M. Brongniart in the Chair.

Chloroform.—Professor Roux stated that he had now employed this anæsthetic agent in several instances, and that it produced loss of consciousness more rapidly, but for a shorter time, than ether: has preferred M. Charrière's apparatus to any other. Professor Velpeau was of a different opinion: he believed the insensibility to be more prolonged after inhalation of chloroform, than after ether: the handkerchief was the best inhaler. M. Gruby said that arterial blood was not changed in colour by chloroform, whereas it grew dark by etherization: and also that animals who died after inhalation of chloroform could still serve as nutriment—an advantage not presented by the flesh of those killed by ether.

Influence of the Spinal Nerves on the Contractions of the Heart. — In a former paper, M. Magendie showed the intimate connection between sensations of all sorts, whether agreeable or painful, and the frequency and energy of the ventricular contractions of the heart. The object of his present communication was to ascertain the relative degree of influence exercised upon the heart by the motor and sensitive nerves. He concluded, from numerous experiments, that under the influence of the same stimulus, the cardiac contractions were more powerful when the sensitive nerves were irritated, and that the definitive abolition of sensibility, in these nerves, also destroyed the reaction of the heart.

ACADEMY OF MEDICINE.

Meeting of Dec. 22; M. Begin in the Chair.

Election of Office-bearers. — M. Royer Collard was elected president, and Professor Velpeau vice-president, for the ensuing year.

Statistics of Pregnancy, by Dr. Devilliers.—This gentleman concludes, from his researches, that conception takes place as frequently a short time before, as in the days which immediately follow, menstruation; that the fœtus varies considerably in weight at the same period of utero-gestation; and that labour is more generally premature than delayed. According to Dr. Devilliers, the differences observed in the duration of pregnancy depend upon the more rapid development of the uterus or of the ovum: thus labour is prematurely occasioned when the ovum has attained its full size before the womb has acquired its entire development, or, reciprocally, when the uterus has arrived at its proper degree of physiological hypertrophy. Labour, on the contrary, will be retarded when the ovum, although well formed, is contained in a womb not sufficiently irritable to expel it, or when one or the other, *i. e.*, fœtus and womb, have experienced any delay in their development.

On the Nature and Treatment of Asiatic Cholera. By Prof. Giacomini, of Padua.

One of the greatest errors of modern pathologists (says Professor Giacomini) is to admit that a disease may exist without its essential and pathognomonic symptom. This error has arisen from some symptoms being improperly considered as essential. Thus in cholera all those occurrences which sometimes fail, particularly when cases terminate fatally without their presence, should be set aside, and not looked upon as essential to the disease. Vomiting and diarrhœa must, therefore, be considered as secondary symptoms, for not only their violence is not in harmony with the severity of the cases,

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but they do not last throughout the illness, and are completely absent in what is called dry cholera, one of the most fatal forms of the epidemic. Amongst the essential and primary symptoms of the disorder we must number, in the first place, the heat, anxiety, and oppression experienced in the precordial region; the slowness of respiration and involuntary sighing; the successive irregularity, depression, and disappearance of the pulse; the general sense of cold; the partial or total suppression of urine; the deathlike paleness; the subsequent blue colour observed on the body; the swelling of superficial veins; the instantaneous emaciation of the entire body; and finally, the asphyxia. These symptoms all tend to show the origin of the disease to reside in the sanguineous vascular system. They indicate in a manifest manner (?) a violent and universal acute phlebitis. By this name Professor Giacomini indicates a disorder originating in the ganglionic nerves distributed in the venous parieties, and propagated to the vascular walls. The tissue of these ganglionic nerves does not admit of our usual means of investigation, and their irritation is betrayed merely by an alteration of the functions of the parts to which they are distributed, and to which they communicate their impressions, in health or in disease. Now, the first effect of inflammation on the venous system is to cause venous diastole to become more powerful, more lasting, and even permanent. This simple morbid change explains all the symptoms of cholera; by the dilatation of the veins a vacuum is immediately formed, in consequence of which fat and the other fluid and semi-fluid substances contained in the cellular tissue are rapidly absorbed; hence the presence of oleaginous matter in the blood, and the rapid loss of size and of flesh. In proportion as the dilatation of the veins tends to become more permanent, their disgorgement into the right cavities of the heart also becomes more difficult; this causes the excessive oppression, sighs, and abortive efforts of respiration. The left ventricle and arteries receiving less blood, the pulse gradually sinks; the surface of the body grows colder and paler; the kidneys have no more materials for their secretion; asphyxia is imminent, and the veins in the meanwhile remaining dilated, the colour of the skin every instant becomes darker from the arrest of the blood.

The important and special anatomical alterations consist, therefore, not in the appearance of the intestines, but in the viscid and oleaginous condition of the blood, and in the dilatation of the veins, which clearly indicates their hypersthenic condition.

Starting from this ingenious but, to say the least, singular theory of asiatic cholera, the professor naturally reprobates the use of stimulants at any period; but, on the contrary, recommends ice internally, the cold bath, and afterwards venesection. The reason assigned by the professor to his preference for this medication is, that the function of absorption being almost entirely suspended in the gastric cavity, the introduction of medicines into the stomach merely encumbers the abdominal viscera without advantage; after the cold bath, from which Professor Giacomini asserts having derived the greatest benefit, has permitted phlebotomy, mustard poultices and blisters should be applied to various parts of the skin; not with a view of producing revulsion (which Professor Giacomini calls a chimera), but to give power to the absorbents; the blisters, therefore, should only be subfacients, and should not produce vesication.

D. M'Carthy, D.M.P.

Diagnosis of the Cause of Paraplegia.—Professor Cruveilhier asserts that paraplegia depending upon compression of the spinal chord can readily be distinguished from that caused by organic alteration of that nervous centre; when the spinal chord is merely compressed, neither motion nor sensation is abolished in the lower extremities, but the influence of volition upon the movements of those limbs is entirely abolished. In organic lesions of the chord, sensation or motion, or both, are more or less considerably diminished in the extremities.

A Curious Feature of Yellow Fever.—Dr. Kelly, of Mobile, mentions that in what are termed the walking cases, the disease proceeds so insidiously that the first indication of danger, sometimes, of the attack is the appearance of the black vomit. An instance of this kind appeared in New Orleans. A Frenchman complained of being unwell. He consulted a medical gentleman, to whose residence, about a mile distant from his own, he walked every day. On the fourth day of the attack, Dr. Kelly saw him, and the first thing that met his view was the black vomit. Coma and death soon followed. A man went to the house of a medical practitioner, and said that his friends had persuaded him to consult a physician, although he himself believed there was no occasion for it; whilst conversing he asked for a basin, and threw up a large quantity of black vomit. Now, in all these cases the disease proceeds through its several stages, but the symptoms are of a less open and decided character. It is supposed by some that the attack takes place, or that the disease is developed, at the moment when its characteristic phenomena become fully manifest. In the Guzzerat fever, described by Gibson, of the Bombay medical department, although the debility and extreme prostration occurred rapidly, the disease, nevertheless, is stated to have passed through its regular course.

Cretinism.—Dr. Buckminster Brown, who has recently visited the Hospital for the Cure and Education of the Cretins, on the Abendberg, canton of Berne, Switzerland, says that cretinism is undoubtedly one of the numerous forms in which scrofula manifests itself. It occurs in that variety of temperament which has been denominated the bilious or torpid; in children of dark complexion, short neck, head large, dilated pupils, who have tumid abdomen, and are generally of a lax and spongy fibre. Some of the external signs of scrofulous diathesis may be found upon the idiot, and they are such as indicate the sanguine or irritable temperament, and in him the ravages of this disease are much less apparent. The head is well sloped, or, instead of being too large, with a disproportioned protuberance of the occiput, it is too small, and gives the idea of compression; and the features are well formed. Such are some of the chief distinctions. There is also a difference in the moral qualities. The idiot is often peevish and malicious, constantly doing injury to his companions, without provocation, striking, pinching, pulling their hair. In this respect the true cretin is totally different. They may have occasional bursts of anger when provoked, but in general they are kind and amiable in their disposition, affectionate, and easily won to place confidence in those by whom they are well treated, and will fondle about them like a dog receiving the caresses of his master. Cretinism is often found in close companionship with goitre in Switzerland; and it is also often combined with paralysis. In the efforts to accomplish a cure it is found absolutely necessary for the patient to have an entire change of scene and air. In the next place there must be gymnastic exercises, by which the frame is invigorated and the lethargic energies roused. To these are added the other hygienic auxiliaries, good wholesome food, frequent bathing, the douche, friction, and electro-magnetism. In one case in the hospital the nervous system was so enfeebled, that for six months the patient was insensible to the powerful action of this latter agent. After that time he began to feel it severe—soon susceptible to the slightest touch. Moral means are of vast importance, such as gentleness, kindness, and affection. After many long and weary trials, unexpectedly, the child will find his speech; at another leap some simple idea will make entrance, and, the task thus far accomplished, the foundation is laid upon which is built the whole after structure.

Delirium Tremens and Delirium Ebriosorum.—It is impossible, Mr. Solly observes, to give in words all that distinguishes these two diseases; they must be seen frequently to be appreciated. But the following will assist in their diagnosis:—The head and skin generally is cool and moist in delirium tremens; dry and hot in delirium ebriosorum. The pupil varies in both according to the stage; in the early stage of both it is generally contracted, in the latter stage dilated. The conjunctiva injected and red in delirium ebriosorum; the reverse in delirium tremens. The mental derangement in the former is more allied to an exalted, excited state of intellect; in the latter it approaches fatuity and depression. The tongue is generally pale and furred in delirium tremens, sometimes unnaturally clean and red; in delirium ebriosorum it is usually dry, and sometimes brown; but this is no certain guide. The pulse is most uncertain, for, as all inflammatory affections of the brain are depressing in their effects on the heart's action, so do we find that the pulse is not hard and wiry in the hyperemic affection, which, however, never amounts to one acutely inflammatory. Still, on the whole, there is less power in the beat of the artery, and that more varied in deltrium tremens than in delirium ebriosorum.

On Examination of the Ear.—There are two methods, says Mr. Wilde, of Dublin, of examining the ear, which, from their frequency in this country, are not only useless but highly injurious—syringing and probing indiscriminately without proper inspection of the parts. The former is of daily occurrence. A patient labouring under deafness, or violent pain of the ear, is examined either with the unassisted eye, or by means of some of the old divaricating specula, most probably in a badly lighted apartment—at all events, without the membrana tympani being brought into view, a dark cavity being all that the explorer is able to perceive; it is deemed advisable to try what might come out by squirting hot water into this dark passage for the ensuing quarter of an hour; but, nothing satisfactory following this operation, the diagnosis that there is no wax in the ear is accordingly made. Now, there may be a collection of cerumen, which may not be got rid of by this operation; while, if the cause of the pain or deafness is owing to an inflammatory condition of the auditory canal and its membranous extremity, a decided increase of the symptoms is produced by this unnecessary and cruel proceeding. Inflammation is frequently produced by unnecessarily syringing the ear when no wax was present. The practice of exploring the ear by means of a probe cannot be too strongly condemned, and yet that it is frequently resorted to surgeons are well aware. To introduce a probe down to the membrana tympani, without having that membrane fairly in view, and without a speculum being passed down to it, but merely for the purpose of satisfying the examiner as to whether the membrane is perforate or not, is a most unjustifiable proceeding.

Chronic Arthritis Treated by Nitrate of Silver Ointment.—At the Hôtel Dieu and La Charité Hospitals, in Paris, MM. Guerard and Briquet employ, in chronic arthitis following acute rheumatism or any other cause, an ointment containing nitrate of silver. At the Hôtel Dieu, five parts of the nitrate are rubbed down with thirty-two parts of lard. The articulation is well rubbed with it once a day, and a poultice is then applied over it, to favour absorption. This treatment is continued until the disappearance of pain. The epidermis becomes shining, yellowish, or almost bronzed, and sometimes blackened for some days. At La Charité the ointment is not so strong, and is composed of only one part of the salt to thirty-two of lard; the good results, however, are not so well marked. A similar treatment is at present followed by M. Jobert, at St. Louis, in cases of white swelling.

Scabies Treated by Olive Oil.—The method consists in covering the affected parts with oil, slightly heated to favour its absorption, three times a day. The itching completely subsides in three days; the eruption dries up and desqua-

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mates, the redness and swelling disappear, and the patient is generally cured in twelve days. The application should be continued a few days to ensure success. The almond, linseed, nut, and other oils, and even simple lard, will produce the same effect.

Morbid Secretion of Milk.—After the extirpation of a carcinoma of the breast, Chassaigne found in the diseased mass a distinctly purulent and milky fluid, which he considered to be milk. He also examined the carcinomatous breast of another woman, and found milk, which, as a bluish fluid, dribbled constantly over the cut surface; it was present in all the yet healthy portions of the gland, and could be squeezed from the nipple. Milk globules and colostrum corpuscles, exactly as in normal milk, were found in this fluid. Hence it would appear that milk may be secreted as a consequence of turgescence of the gland from any cause.

Turning in Deformity of the Pelvis.—"I have often been struck," says Dr. Simpson, in "The Provincial Journal," "with the circumstance that apparently, when the child presented preternaturally, and in consequence ultimately passed with the feet or pelvic extremity first, the labour seemed frequently both easier and safer to the mother and infant than when, in other labours in the same patients, the head of the fœtus happened to form the presenting part. In this way mothers who had always suffered under very severe and instrumental labours when their children presented by the head, were, not unfrequently, fortunate enough to escape far more easily when, at other times, the infant chanced either to present originally with the feet, or had the feet artificially brought down during the labour in consequence of the infant lying transversely, with the arm or shoulder constituting the presenting part. The history of some few cases evidently showed that, when the distortion and obstruction in the maternal passages were so great as to have invariably necessitated in all the previous labours the death of the infant by craniotomy, a living child was occasionally at last born, when it happened to pass or to be brought through the contracted pelvis as an original or artificial footling presentation. In such instances the presentation of a hand or foot, when first discovered at the commencement of labour, has been regarded as an undoubted source of increased danger and difficulty, but it has at last more frequently proved a source of increased safety to the mother and the indirect means of preserving the infant."

Treatment of Gangrenous Syphilitic Sores.—Dr. Oke says, in a paper "On the Opinions and Practice of the late Mr. Pearson on Syphilitic Disease," "When extensive gangrene has taken place, it is not at all times easy to decide whether mercury ought to be given freely or not. If gangrene, however, has taken place under the use of mercury, it should be immediately discontinued, and the use of tonics, with a generous diet, substituted. If, previously to infection, there existed a delicate, weak, or cachectic condition of the constitution, even if no mercury had been used, the case should be treated with tonics, especially the iodide of potassium, opium, and a generous diet. But if the primary sore quickly followed exposure, spread rapidly, with pain and inflammation, and soon became gangrenous, and if the general health had been previously unimpaired, then the destruction of the parts may be fairly referred to the intensity of the virus, and the free use of mercury at once employed. When there is a sloughing sore, with phymosis, and hemorrhage takes place, if the prepuce cannot be retracted it must be divided, although in such a state of the parts such a step is most undesirable. If the bleeding be not considerable, other means may be previously tried, such as the injection of warm porter or wine between the prepuce and glans. The hemorrhage generally springs from the glans penis, and, although its texture even in a healthy state is scarcely fit for the needle, and of course is much less so in a state of disease, it will be, nevertheless, right, if profuse bleeding continue, to make the attempt to stop it by such means, taking care to include a portion of the surrounding parts in the ligature. If this method should not succeed, the bleeding vessel may be compressed by the hand of an assistant, as long as it may be necessary, with a bit of sponge, or puff-ball, or a little bag, containing some powdered sulphate of copper; and, should these means fail, turpentine, boiled over a candle in a spoon, may be poured upon the part from which the blood issues; or, the actual cautery, all other remedies proving of no avail, may be applied. In using the severe methods the prepuce must be divided. At first it is best to make the division by a single longitudinal incision, in order to liberate the parts, and to finish the operation after the sloughing shall have ceased. If mercury be found to aggravate the local disease, it must be discontinued, for it is better that the system should continue under the influence of the syphilitic poison than that the organs of generation should be destroyed, and the general impaired by means of mercury."

Treatment of Primary Syphilitic Sores in Women.—When chancres are accompanied by much pain and inflammation, they may be washed with a lotion of calomel and lime-water, or the yellow wash. By these means they will be found generally to heal rapidly; but, if the sores be very large, they must be dressed with mercurial cerate. When the inflammation and tumefaction of the labia nymphæ are so great as to confine the patient to her bed, poultices, as well as the above-mentioned dressings, must be applied; and, if gangrene has taken place, the stale-beer poultice may be used, together with the internal use of bark, mineral acids, &c. When there is enlargement and induration of the nymphæ, which have not been beneficially affected by the use of mercury, poultices, the vapour of hot vinegar and water or spirit of wine, nymphotomy may be performed.

Induction of Premature Labour.—Mr. Turton read a paper to the Sheffield Medical Society on the induction of premature labour, in which he stated that the induction of premature labour might be regarded as justifiable in two classes of cases. First, where delivery has been repeatedly effected by the use of the lever or forceps, the children being still-born; or, secondly, where the perforator has become necessary from some insurmountable obstacle to the delivery of the child, especially from that deformity of the pelvis which proceeds to actual distortion. Different plans have been proposed: for instance, the rupture of the membranes, or the separation of a portion of the membranes from the cervix uteri. Where the deformity is not very great, this plan has decided advantages; but where the distortion is extreme, it will not at all times be possible. In the first case a blunt instrument, as a metallic bougie, may be used, either to rupture the membranes, or to separate. It is not essential to have an immediate discharge of the liquor amnii, neither is it to be positively considered that rupture has not been effected because the discharge does not immediately ensue. It is a matter of some importance to keep the patient at rest until there are indications of uterine contraction, in order that the system may be prepared for the process of parturition. It is always best to allow the process of uterine contraction to commence leisurely, without resorting to the secale, which, possessing an expulsory power, and not a dilating one, should only be used as a powerful auxiliary when the cervix uteri is developed. The first case was one in which premature labour was induced in order to save the life of the child. The patient had been delivered two years before with very great difficulty and hazard, so much so that it was recommended most strongly if she again became pregnant, to produce premature labour at or about the seventh month. At that period the cervix and os uteri were dilated, and with a blunt instrument the membranes punctured; when some degree of expulsory effort was established, the secale was administered in the form of diluted essence, increasing the dose as the effect increased, so as ultimately to produce sufficient expulsory effort. This was accomplished at the end of a week. In a second case labour had been very difficult and tedious, from the existence of deformity. The aperture of the pelvis was very small on the left side, rather larger on the right, but by no means affording space for the exit of a child, even at the seventh month. There was also great spinal deformity. In the fifth month of pregnancy an attempt was made to reach the os uteri with the fore finger of the right hand, supposing, from the pendulous abdomen, that it would be found towards the promontory of the sacrum; this was not the case, and by using the left finger it was found over the symphisis pubis. The membranes could not be separated from the cervix, as the arch of the pubis was too much contracted to allow of the introduction into the vagina of any part of the hand. A metallic sound was then introduced, in order to rupture the membranes, as far as he could venture to do. No water escaped; it did so in the former case. She passed a good night; a dose of castor oil had evacuated the bowels; micturition free; no pain in the uterus, but some in the back; in good spirits. She went on this way for three days, when she complained of pain in the back and loins, as if uterine contraction were commencing, and there was a slight watery discharge. In order to aid this effort, the ergot was ordered to be taken thrice a day. Three days afterwards, uterine efforts well marked; discharge much more abundant, and rather fetid. To continue the ergot every six hours. The pain and expulsive efforts gradually increased, and on the eighth day after the first attempt to induce labour, the fœtus, enveloped in the membranes not fully ruptured, was expelled. The placenta soon followed. No hemorrhage, neither after-pain of any moment. The uterus readily contracted. The fœtus was a healthy, well-formed one, about the fifth month. From these cases the following facts are deduced:—1. The safety and value of the induction of premature labour. 2. That the means used are both safe and, in general, easy. 3. That the ergot is a valuable auxiliary, and that the best time for its administration is when we are satisfied that utero-gestation is arrested, as indicated by the pains and the muco-sanguineous discharge.

Efficacy of Oxgall in Removing Impacted Fæces.—Dr. Edward Vanderpool, of New York, relates in "The New York Journal of Medicine," the case of a man, forty years of age, of full habit, whom he attended, who was suffering from pain and great distress in the right iliac region, preventing rest and sleep, and causing constant moaning. He had been confined to bed a fortnight with these symptoms, during which time he had been treated antiphlogistically for peritoneal inflammation; calomel, cathartics, and castor oil had been repeatedly given, producing only a slight fæcal evacuation every day; calomel and ipecacuanha, and calomel with Dover's powder, had been continued in small doses; his month had been touched for more than a week; leeches had been repeatedly applied, and at last a blister. The right iliac region appeared preternaturally full; a hardness was here discoverable, as of a tumour lying deep in the abdomen, occupying the seat of the cœcum and ascending colon, which was very painful on pressure. For two years he had been subject to colicky pains, for which he would every week or two take a cathartic dose of calomel at night, and follow it with salts in the morning. A small motion would be the only result, with the invariable feeling of not being relieved. The inspissated oxgall was prescribed, in doses of eight grains, three times a day, and enemata of diluted gall, to the amount of two quarts, night and morning; broth and farinaceous drinks. The first enema extended to the part affected, and produced a quantity of scybalous fæcal matter, with some mucus. Some alleviation followed this evacuation. The enema was repeated next morning and evening, with the effect of an increased quantity of old fæcal matter, and less pain afterwards in the iliac region. Considerable exhaustion following the morning enema, it wa

thought better to omit it in future, and give eight grains of the gall four times a day, and use the injection at bedtime. This course was pursued for ten or twelve days, resulting with a voluntary fæcal evacuation in the morning, which had the appearance of long impaction, and a quantity of the same in the evening, believed by the patient to have been by him two years. The abdominal distress abated as this old fæcal matter passed off, and the mucus daily lessened in quantity. He convalesced steadily without any other medicine, and was soon discharged cured.

Constitutional Syphilis of Infants. — MM. Trousseau and Laseque consider that syphilis may be transmitted, either in its primary or secondary form, directly from the mother to the infant; but say there is no proof of the transmission of tertiary lesions except as a consequence of the primary or secondary forms. The appearance of syphilis in the infant takes place not before the second week after birth. One of the earliest and most characteristic signs is a coryza, which begins with mucous secretion, followed by serous and purulent discharges, and by hemorrhage of greater or less frequency, and terminating in caries and deformities of the nasal bones. This is considered to be an affection peculiar to syphilitic infants. There is also a particular discoloration of the skin, which becomes tarnished and loses its transparency, without any preternatural turgescence or shrinking. The colour is equally diffused on the neck and trunk; the greater its diffusion, the less, generally speaking, is its intensity. The tarnished hue of the skin generally lasts more than a week. The occurrence of an eruption, with other valuable signs, is sufficient to place the conclusion on a firm basis; the colour, however, cannot always be relied on as a means of diagnosis. In the subsequent progress of the disease the infant becomes cachectic; accidental wounds assume an unhealthy aspect, and heal with difficulty; the umbilical cicatrix is apt to remain open, and to fungate. Sometimes, though by no means constantly, there is gradual emaciation; the violence of the internal disorder bearing no proportion to the intensity of the external signs. The infant does not take the breast regularly; sleep is short and interrupted; it cries frequently and without appreciable motive; and, concurrently with these symptoms, diarrhœa is established, which it is exceedingly difficult to subdue. The mouth and anus, when the mucous membrane joins the skin, are cracked and fissured, and the discharges by stool are often bloody. Under these circumstances the infant, impoverished and weakened, falls a victim, either to the chronic disorder, to the reigning epidemic, or some accidental acute disease. The fatal sinking is, in general, extremely rapid, and not preceded by the usual warning circumstances; and the inspection of the body does not explain the rapidity of the fatal termination. The most constant lesion is serous effusion into all the cavities.

Chorea Treated by Large Doses of Tartrate of Antimony.—M. Salques, of Dijon, had recourse to tartar emetic, in a case of chorea of five years and a half's standing, and which had resisted valerian, oxide of zinc, purgatives, cold baths, and narcotic frictions of the spine. For a week thirty centigrammes were given daily, in a drink. The first dose produced strong vomiting, and an abundant diarrhœa; the others caused no apparent effect, with the exception of an anorexia, and the cessation of the chorea. The fourth day, ten leeches were applied to the neck to diminish a slight cerebral congestion. A permanent cure followed.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

(J. M. Arnott, Esq., F.R.S., President.)

CASE OF LARYNGITIS, ACCOMPANIED BY THE FORMATION OF FALSE MEMBRANE IN THE TRACHEA AND BRONCHI, IN WHICH TRACHEOTOMY WAS SUCCESSFULLY PERFORMED.

By T. A. Barker, M.D., Physician to, and Lecturer on the Practice of Medicine at, St. Thomas's Hospital.

A woman, aged twenty-two, four months pregnant, after delicate health, and symptoms of commencing phthisis for nine months, and pain on deglutition for three months, was admitted into St. Thomas's Hospital with chronic laryngitis, and signs of tubercles, in an an early stage, at the commencement of January, 1847. In a few days the symptoms became urgent, indicating the necessity of immediately opening the trachea. The operation was performed by Mr. B. Travers, junior, and the woman was nearly asphyxiated before it was completed, in consequence of a false membrane formed in the trachea, where the opening was made, blocking up the tube below the opening, having probably been forced downwards by the scalpel. Five days after the operation there was extensive hemorrhage from the wound, and, together with the blood, a large quantity of fibrinous matter, evidently casts of bronchial tubes, was expectorated. The wound gradually closed, and there was no return of dyspnœa; but, as the tubercular disease in the lung advanced, there was incessant cough, and the stomach became very irritable. Six weeks after the operation the patient died exhausted. The mucous membrane of the larynx and upper part of the trachea was completely destroyed, and both lungs, especially the right, were thickly studded with tubercles in an early stage. As life was prolonged for six weeks, and death was not ultimately caused by obstruction in the larynx, the author considered this a successful operation, though performed under unfavourable circumstances. There was ulceration of the trachea at the part where the opening was made, which prevented the use of a trachea tube, on account of the irritation it excited; there was false membrane both in the trachea and bronchi; there were tubercles in the lungs; the patient was exhausted by copious hemorrhage on two occasions, and was much depressed in mind, nevertheless she survived for six weeks.

NOTES OF A CASE OF MALFORMATION OF THE HEART.

By Dr. T. B. Peacock.

In this case, which was alluded to at the close of Dr. Peacock's paper in the last volume of the Society's "Transactions," there existed a septum dividing the sinus from the infundibular portion of the right ventricle, and allowing of communication between the two cavities only by an aperture of sufficient size to admit the point of the forefinger. The case was particularly interesting, from permanent and marked cyanosis having been present during life, though there existed no other imperfection in the heart, and consequently no intermission of the venous and arterial currents of blood. The subject of the affection was a female child, five years of age.

ETHNOLOGICAL SOCIETY.

Vice-Admiral Sir Charles Malcolm, Vice-President, in the chair.

Rev. Tullie Cornthwaite, M.A., Professor W. E. Buckley, Rev. W. Norman, M.A., George Wythe Daniel, M.D., and Messrs. N. S. D. Harris and Philip Francis Dart, were elected fellows.

The papers for the evening were—1. "Report of the Ethnological Sub-section of the British Association at Oxford, by Dr. King, Hon. Sec. 2. "On the Natives of the three Kingdoms of Ambriz, Ambrizette, and Musula, Southward of the Congo," by W. F. Daniell, Esq., read by Dr. King.

The maritime territory to which Mr. Daniell directed the attention of the society embraces a tract of coast, above 130 miles in length, extending from Cape Padron, the south-western point of the river Congo, as far as the Rio Dandé. The natives of Ambrizette are much inferior to the tribes to the southward, and have not attained that degree of civilization. Ambris originally constituted a fifth of the opulent principality of Bamba, under the title of Quitungo. According to oral tradition, after the dismemberment and final dissolution of the seven principalities which comprised the supreme monarchy of the Congo, their country was invaded by a Portuguese army, who erected a number of fortresses on eligible sites. The tyranny and exactions of the invaders gave rise to a guerilla system of warfare by the natives, which ultimately led to the extermination of the Portuguese. From this period they enjoyed full liberty under kings selected from the higher class of chiefs. The inhabitants of both Ambriz and Musula, though closely allied in physical formation, language, and other national peculiarities to the tribes resident on the banks of the Congo, yet offer some distinctive features that apparently incline to establish their connection with other races whose exterior attributes are not altogether in conformity with those derived from a more primitive source. There can, however, be no difficulty in assigning the primary origin of the various tribes that occupy the lowland regions placed in the neighbourhood of some great river, such as the Congo, a stream which, penetrating an immense distance inland, may be supposed to furnish the ordinary means by which the tidal efflux of population had gradually approached the seacoast. There are other causes also: thus, the assimilation of one black race with another may be imperceptibly effected either by subjugation and consequent colonization, by the liberation and adoption of slaves of foreign extraction, and by intermarriages with distant nomadic tribes. An analytic investigation into the structural outlines of the people of Ambriz will point out unequivocal proofs of a dissimilarity from those tribes which have conjointly descended with them from one common parentage. This is well exemplified by a comparison with that uniformity of organization which yet prevails among the *habitans* of certain districts on the banks of the Lower Congo, who, in consequence of endemic influences and a less intermixture with other tribes, may be taken as the true typical conformation of the black races in this portion of Western Africa.

STATISTICAL SOCIETY.

Lieut.-Colonel W. H. Sykes, Vice-President, in the chair.

Eleven gentlemen were proposed as fellows. The subjects for the evening were—

1. "Report of the Statistical Section of the Oxford Meeting of the British Association," by Joseph Fletcher, Esq., Hon. Sec.; abstracts of the paper upon which Mr. Fletcher founded his report have already appeared.

2. "An Analysis of the Returns to the Stamp-office of the Shareholders in the Joint-stock Banks," by G. W. Gilbart, Esq. Returns have been made according to the act, passed in the year 1844, for renewing the charter of the Bank of England for the years 1845-6-7, but Mr. Gilbart confined himself to those of the joint-stock banks in London for 1847.

It appears that above one-third of the shareholders have taken shares solely with a view of obtaining profitable employment for their capital. They probably prefer public companies to the public funds, because of the higher dividends they are likely to obtain. During the last war the surplus savings of individuals were lent to the Government. This capital, whether sent abroad as subsidies or expended in ammunition at home, was annihilated, and the interest became a burden on the nation. Now, in times of peace, the surplus savings are invested in insurance, banking, railway, and other public companies. Here the capital is not annihilated, and its employment yields an annual profit which tends still further to enrich the nation. By means of companies the comparatively small savings of individuals are united into one sum more capable of profitable employment. Thus almost every person in the nation may, by the purchase of shares in proportion to his ability, place his surplus savings, however small, in a state of productive employment.

3. "Mortality among Blind Children," by Thos. Wiglesworth, Esq. The object the author had in view was to ascertain if the loss of sight affected the duration of the lives of children, and, if so, to what extent. He accordingly inspected the register of the Blind Asylum, St. George's-fields, which has been established fifty years. From these data he found that the number out of which one child would die in a year will be as follows:—

Age 14 one in	224	Age 18 one in	57
15 ,,	248	19 ,,	40
16 ,,	89	20 ,,	70
17 ,,	65		

From data supplied by the Liverpool Institution for the Blind, Mr. Wiglesworth was enabled to form the following table of the causes of blindness:—

Causes of Blindness.	Totally. Per cent.	Partially. Per cent.
Blind from their birth ..	8·3	8·3
In consequence of—		
Smallpox	25·8	9·6
Inflammation	32·4	38·7
Cataract	6·1	19·5
External injury ..	10·7	8·0
Defect in optic nerve ..	9·3	12·5
Amaurosis	·5	·7
Imperfect organization ..	·4	2·2
Lost their sight at sea ..	1·1	·2
By gradual decay ..	·7	·2
After fever	1·4	·4
Measles	·8	1·1
Convulsions	·3	·7
From causes not mentioned, or imperfectly described	2·2	2·9
	100·0	100·0

REVIEWS.

Elements of General and Pathological Anatomy, &c. By DAVID CRAIGIE, M.D. Edinburgh: Adam and Charles Black. London: Longman and Co.

This very useful volume scarcely admits of criticism in the usual meaning of the word. It contains few novel views, and carefully eschews all theory, but is replete with facts and observations judiciously arranged and perspicuously stated. A little more philosophical induction would have made it a more interesting book to the literary reader, and would, perhaps, have rendered it more lucid as a whole than we find it to be—so much does a leading principle upon any subject tend to method and luminous arrangement; but then it would have run the danger of losing the character, which it now deserves, of being a faithful record of all that is known and received as true upon the subjects of which it treats.

The discoverer of facts comes first, in the order of scientific research; then the gatherer, who collects them from the various fields of labour, and stores them in the written archives; lastly, the discoverer of laws, who extracts the unwilling secret from the lips of Nature, and reveals the mysterious truth to the world. Books such as these, when knowledge increases so rapidly and is so extensively diffused, become a necessity in literature, as they serve to mass our knowledge, and to hoard it for future use. Let all honour, then, be given to the laborious gleaners in the fields of science; without them many a ripe ear would be lost, and the ascertainment of truth for a long time deferred.

The volume before us is a second and very much improved edition; and, however valuable it may have been esteemed when it was first submitted to public examination, its merit is now, as a compendium of anatomical and pathological knowledge, greatly enhanced. Two new books are added to it: one on the structure and morbid states of the glands; the other on the structure and morbid states of the lungs and heart.

Without chapters on each of these subjects the work must have remained very incomplete. We think, however, with every disposition to approve of such heavy and will-intended labours, that the book is, on the latter subjects, much too meagre to give satisfaction to the inquirer. These chapters seem rather to have been hurried off as an ungrateful task for the sake of completing the volume, than executed as a zealous and truth-loving resumption of a self-imposed duty.

One section of the chapter referring to the morbid states of the heart is, however, favoured with more space than has been allotted to others equally or more important. It is a subject, however, in which the author seems to take especial interest. The section is headed "Partial Aneurism, or Consecutive False Aneurism." The author had collected and previously published the particulars of seventeen cases of this form of lesion, and he here recapitulates the leading facts observed in these cases, and gives a summary of the opinions entertained as to the production of this morbid state. After fixing the most frequent site of this disease near the apex of the left ventricle, the author inquires into the mode in which these aneurismal pouches are formed. He first cites M. Breschet's opinion, that this lesion was analogous to false consecutive aneurism of the arteries, and caused by rupture of the muscular tissue; he then refers to M. Bouilland's idea, viz., "that the false consecutive aneurism of the heart is one of the effects or terminations of inflammation in the muscular substance of the heart." The author, however, denies the correctness of the general application of this idea, and observes, "Not only do instances of aneurismal cysts in the substance of the heart take place without any indications of previous inflammation or ulceration, but in several of the cases, indeed the majority, the lesion exists for a long time, without presenting any of the symptoms of the inflammatory or ulcerative process." The author then cites the well-known case of Talma in corroboration of this assertion. "It must be allowed, nevertheless," the author continues, "that the inflammatory process, without proceeding to ulceration, as Bouilland requires, may have a tendency to produce this lesion, by the change which it effects on the tissues in which it is seated." Adopting this opinion, the author reverts to the explanation of M. Cruveilhier, who inferred "that in every instance of false consecutive or partial aneurism of the heart, one of two processes is in operation: one, *the inflammatory action*, and the other the *fibrous transformation of the muscular tissue* of the heart." To the latter cause, however, M. Cruveilhier assigns the principal place.

This pathologist, however, distinguishes between partial aneurism and false consecutive aneurism of the heart. "By partial aneurism M. Cruveilhier understands," says our author, "dilatation of one portion of the heart into a cyst, in consequence of fibrous transformation of the tissue of the organs. These parts, however, may become eroded, and hence may be lacerated; and while the cardiac pericardium prevents complete rupture, either alone or by its having contracted adhesion with the capsular pericardium, the partial aneurism of the heart would then be converted into false consecutive aneurism." The author thinks that M. Cruveilhier's idea relative to the fibrous transformation of the muscular tissue of the heart derives great force "from the appearances of many examples of the lesion," but that "the only question for consideration would appear to be, whether has this fibrous transformation taken place *before* the aneurismal dilatation or *after* its occurrence?" No conclusive answer is given to this question, but the author sums up the evidence in the following manner:—

"Though it is doubtful whether abscess is the cause of this lesion, I think various facts show that chronic inflammation is the main predisposing cause of its origin. In the first place, the disease takes place in persons rheumatic or gouty, or who have had rheumatism; and in whom often the endo-cardium is or has been inflamed. In the second place, the effect of inflammation, it has been shown, on the muscular tissue is to destroy its elasticity, to render it brittle and easily lacerable, and sometimes to soften it. If, therefore, inflammation were attacking either the endo-cardium and spreading to the muscular fibres, or were attacking the latter from the first, it is easy to see that it might cause, in an organ so liable to distention and in action so incessant, laceration. In the third place, we find the lesion preceded or accompanied by various changes in different textures of the heart, which are generally regarded as effects of chronic inflammation."

We think that, notwithstanding the prudence and the circumstantial exactitude which seems to characterize this verdict, the author is not altogether consistent with his own utterances in a previous paragraph. The author, in the sentence just quoted, sets out with the proposition, from which all the rest is inferential and explanatory, that "various facts show that chronic inflammation is the *main* predisposing cause of its origin;" whilst, among the arguments adduced to refute Bouilland's idea, he declares "not only do instances of aneurismal cysts in the substance of the heart take place *without any indications of previous inflammation* or ulceration, but in several of the cases, *indeed the majority*, the lesion exists for a *long time without* presenting any of the symptoms of the *inflammatory* or ulcerative process," with much more to the same purpose.

Now, we tell Dr. Craigie, that we are always inclined to think that there is more truth in the refutation of an error than in the substantiation of an opinion; we shall, therefore, prefer using his equivocal evidence against himself, rather than in his service. We infinitely prefer his facts to his assumptions. An inductive writer should have a clear judgment and a long memory. These qualities are essentially necessary in the study of the science of medicine, where facts are so various and multiform in their relations and combinations, showing under different points of view such singular and unexpected phases, that consistency of opinion is soon lost if a writer be unfortunately endowed with a short memory, or, with the desire to generalize, has not arrived at a definite guiding principle.

A decision upon this interesting subject cannot yet be obtained, as the facts are not sufficiently numerous and minute to enable us to form a conclusive opinion upon them. It is a subject, however, well worthy of the careful investigation of the pathologist.

We shall now dismiss Dr. Craigie with a cordial recommendation of his very useful work, which, generally exempt from theoretical views and transitory hypotheses, will constitute a sound, copious, and impartial volume of reference for the pathological student.

THE MEDICAL TIMES.

SATURDAY, JANUARY 1, 1848.

FREE HOSPITAL QUACKERY.

SINCE the appliances of poor Marsden's bankrupt concern in Gray's-inn-lane were, in a last desperate fit of compulsory hospitality, made over to the "urgently destitute" surgery of The Wakley Family, many complaints have circulated to us through the profession on the unblushing way in which the patients and funds of that worse than beggarly institution have ministered to the purposes of a very mischievous quackery. In pity somewhat, but in contempt more, we withheld through months to give exponency to the universal condemnation; but the advertising boldness—out-hallooing even Holloway—has been encouraged by our forbearance to so dangerous a

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magnitude—the whole charitable "dodge," with all its pious adjuncts, threatens to be transmuted so daringly and so fast into a quack operating establishment (a species of chirurgical advertising van)—that we are reluctantly compelled at length to unite our protest to the general indignation, and to avow with a whole profession, at once outraged and disgusted, that such a contamination of a medical charity on one side, and of the object of medical charity (a professional journal) on the other, must no longer be tolerated.

Our complaint is not so much that the eleemosynary nuisance which Mr. or Dr. Marsden possesses in Gray's-inn-lane is made, with its twenty or thirty beds, the daily arena of empirical "*chirurgeries*" and field-day mutilations, though that is no insignificant offence; nor is it that the juvenile "*surgeons*" to that "*Royal*" Institution can scarcely order a poultice, without the public finding on their breakfast-table elaborate newspaper reports of the important circumstance; but it is that, first, a person possessing the diploma of the College of Surgeons should, day after day, by advertisement in every newspaper's quack column, call special attention to his "operative surgery"—and more especially to his "extraordinary" operations in the "extraordinary and interesting" cases of two very old men (giving their ages) who, through his skill, "perfectly recovered!"(a) and it is, secondly, that the person committing this flagrant offence should do it with the sanction, aid, and protection of a journal which, professedly opposed to quackery, depends on "*professional*" funds for its support, sustenance, and vitality! This is, indeed, *quite* unsupportable.

It is not to be doubted that the profession's pain and disgust at such extraordinary instances of chirurgical misbehaviour are founded on the surest grounds of virtue and public policy. In this novel species of audacious empiricism, there is in question much more than a breach of etiquette or of conventional regulation. Far more. The rule that binds a man against advertising and "touting" for patients is the protection of the public, no less than of the profession, and is essential to the well-being of both. It is the safeguard of the rights of learning and experience, and stands between the world and many a calamitous doing from the temerity of youthful ignorance. It protects us from a system of huckstering competition, by which noise would replace skill, impudence knowledge, and our whole medical practice degenerate into a thing of business expediency and accomplished superficials. It keeps down the vulgar mercenary propensities which would only see in a patient a customer, in a disease a commodity, in a deadly operation a "puff," and which, turning the medical practitioner into a species of pharmaceutical attorney, would make him the slayer instead of the saviour, the curse instead of the blessing of his neighbours. In fine, it is a law which preserves gentlemen where it finds them, and makes them where it gets the material: which secures to the sick man a skilful adviser, to the dying one an honourable friend; and which, maintaining throughout the land, in respectability and credit, the noblest aristocracy a country ever boasted—an aristocracy of skill and ceaseless usefulness—is the cause of unnumbered blessings to the whole community.

Let us judge, then, the moral tie of this law, as we do all others, by the importance of its adjuncts and consequences, and we are authorized to say that its violators infringe the plain duties of honest men, and commit a social offence well worthy of legal cognizance.

Nor should they, in cold policy, escape a condign punishment. The profession never more needed the protection of a martial law of etiquette than now. There is much of class disorganization in our ranks. Our numbers are great; poverty stimulates; worth is tempted; competition encroaches; an honest fear can alone defend us from dishonest hopes. It is true—to the honour of the profession—that there has been few—very few—such daring infractions; but the more rarely we have been troubled with such offences the greater will remain the reward to the young adventurer who will not be so restrained. The pecuniary advantages are visible, immediate—palpable, and, if to clutch them he do not hesitate to sacrifice repute, we must not hesitate to ward off imitation by visiting him with the full penalty. He becomes a rotten branch of the tree professional, and he must be lopped from it for the common safety.

Among the many provisions in the new Surgical Charter, there is one which in some manner atones for much of grievous impolicy and wrong. It gives the College of Surgeons the power to investigate a circumstance of this kind, with the right to inflict a very adequate punishment. The 22nd clause runs thus:—

"That if it shall at any time hereafter appear that any present or future member, or any fellow of the said college, to be appointed or admitted at any time after the expiration of the said first three calendar months from the date hereof, shall have obtained his letters testimonial or his diploma respectively by any fraud, false statement, or imposition, or that, either before or after obtaining such his letters testimonial or diploma, he shall have violated any by-law, rule, or regulation of the said college, then, and in every such case, and after such previous notice to, and such hearing of, such member or fellow, as under the circumstances the council of the said college shall think proper, it shall be lawful for such council to recal and to declare the letters testimonial or diploma respectively of such member or fellow to be void, and thereupon every such member or fellow shall cease to be a member, or a member and fellow of the said college, as the case may be accordingly."

Here, then, is the power: have the council the will—the courage—the honesty to exercise it? If unused now, can a case ever occur in which, with decency or any chance of success, they can avail themselves of a privilege which, well exercised, may confer such great benefits on the profession?

(a) (*Advertisement.*)—"OPERATIVE SURGERY.—Amputation at the shoulder-joint in a patient, aged seventy-one, successfully performed under the influence of ether by Thomas Wakley, Esq., surgeon to the Royal Free Hospital; also amputation of the arm in a man, aged seventy-five, under the influence of ether, successfully performed by Thomas Wakley, Esq.: perfect recovery of both patients. These cases exhibit the most extraordinary proofs of the safety and value of the use of ether vapour in operative surgery."

THE MEDICAL COUNCIL OF THE LONDON UNIVERSITY SCHOOL.

ELECTION OF A SURGEON.

THE governing body of this institution has appointed Mr. Syme, the Edinburgh professor of clinical surgery, to be surgeon to the hospital, and lecturer on surgery to the school. The vacancy thus created at Edinburgh is expected to be filled by the appointment of Professor Miller.

The choice of Mr. Syme has created a very general dissatisfaction among London surgeons; but, all circumstances considered, we think it the best appointment that could have been come to. It is to be regretted, but the fact is therefore not less certain, that the metropolis has been most unsuccessful of late years in bringing forth a progeny of promising surgeons; and while we join in the complaint, that a large hospital school, after an existence of the sixth part of a century, has not one *alumnus* worthy of its surgical chair, it is better to admit the misfortune than to attempt to conceal it under an inefficient and reprehensible appointment.

It was desirable, on the first establishment of the hospital of this institution, to select a surgeon in every way competent for the duties of the office; but, when the "medical *senatus*" sought for a man who should excel merely in performing operations, and for the avowed object of increasing the number of pupils by the sanguinary exhibitions of an operating theatre—never taking into consideration the benefit of the sick poor—the principle of such a system met with universal disapprobation, and we may confidently affirm that it was considered by the profession at large not only as holding out a bad example to the youths of the hospital, but a base principle to adopt in electing medical officers, and one entirely new and unexampled in the history of hospital appointments.

Whatever *profit* the *senatus* may have derived from Mr. Liston's fame as an operator, it is earnestly to be hoped that his successor has been selected more for his knowledge of the best modes of curing diseases and preventing the necessity of performing operations, and not merely for a display of operating.

If there has been any one reason more than another which has advanced surgery in the estimation of society, by destroying its character as a mere handicraft art and raising it to rank amongst the sciences, it has been the extraordinary diminution in the number of operations which the most eminent men who practise it have now recourse to. "The passion of acquiring character in operations," justly observes Sir Charles Bell, "is surely full of danger; it is fit for those only to possess who have no higher claim to public esteem."

IRISH POOR-LAW MEDICAL REMUNERATION.

IT is evident, from what has occurred in reference to the Irish Board of Health, and in connection with the several poor-law unions on the other side of the Channel, that our medical brethren have to do with hard taskmasters, who seem to imagine that attendance upon the sick poor is only worthy of a small reward. The remonstrant physicians and surgeons have been compelled, for a miserable sum, either to expose their lives in attending upon patients afflicted with virulent disease, or to a great extent relinquish the exercise of their high vocation. Fever has employed its deadly influence throughout almost every city, town, and village in Ireland. Numbers of medical men have succumbed to its power. Yet, on the part of Government, there has been manifested no symptom of regret; but the lives of our brethren must be still jeoparded for the pitiable sum of five shillings a day.

The same policy has been adopted as regards the payment of union medical officers, a sum being tendered to them which cannot possibly remunerate their services, and which exercises a most injurious influence in depreciating the value of their labours in public estimation.

The Dundalk Union has within the last month required the services of a medical practitioner to vaccinate the poor of the district, and an advertisement has accordingly been inserted in the

Newry Commercial Telegraph. With a liberality peculiar to poor-law guardians, the sum of one shilling per head has been offered for the first 800 successful cases, and SIXPENCE for each successful case over that number, within the year. Moreover, the reward being so very considerable, applicants are required to attend in person at the board-room on the day of election. But, in order that the board of guardians may have no reason to complain of any unjust reflections on their liberality, we give our readers a verbatim copy of the advertisement from the board-room, as it appeared in the newspaper :—

"DUNDALK UNION.—VACCINATOR WANTED.—The board of guardians of this union will, on Wednesday, the 15th December inst., consider applications from persons duly qualified for a vaccinator for the union, on which day the appointment will be made. The rate of remuneration to be one shilling each for the first 800 certified successful cases, and sixpence for each successful case over that number, within the year. Applicants will have to attend in person at the board-room on the day of election. Applications to be sent to me, directed to the 'Board of Guardians of the Dundalk Union,' on or before the above date. By order of the board, WM. HILL, Clerk of the Union. Board-room, Dec. 1, 1847."

It will be seen that this revered board is deeply anxious the gentleman employed should be duly qualified; he must be one who has studied his profession, and who for this purpose has expended no inconsiderable sum upon his education; no illiterate practitioner, incapable of discriminating between a genuine vaccine pustule and a spurious one, will do; and, with a proper regard for the welfare of the poor, on the 15th day of December all due consideration was to be given to the applications, that the most suitable person might be elected. These precautions are certainly worthy of praise, and we should have heartily rejoiced if as much concern had been manifested for the temporal welfare of the "duly qualified" operator. Here, however, the left-handed charity of the board becomes eminently conspicuous, for how is it possible that pauper patients can receive all that attention from the surgeon which their cases require to shield them from a frightful disease, when he receives the paltry remuneration of less than a shilling per head upon the gross number.

Towards the "duly qualified" practitioner himself, the paltry sum must operate most injuriously, not only as it cannot reward him for the time and talent employed, but because it will induce patients capable of paying to expect medical attendance upon terms most degrading and unremunerating. This has been really the case in some of the parochial unions of England, as many letters which we have received from well-known correspondents testify. One gentleman, who has very recently addressed us, says, "I hold a district with the fixed sum of 1s. 6d. for each successful case of vaccination. The neighbourhood knows it, and private patients will not give me more, expecting me to call at their houses to operate, and once or twice afterwards to see the arm. Now, I am obliged to do this to save my business; and it, therefore, shows the curse brought upon us by the unions."

The injury thus inflicted is not confined to union surgeons, but extends to every general practitioner. A common interest should, therefore, stimulate them to united efforts, in order that they may obtain for their services that remuneration which is in accordance with the dictates of justice and humanity.

DIAGNOSIS OF DRS. WATSON AND WILLIAMS IN THE CASE OF MR. LISTON.

[The following letters have been published by Dr. Watson and Dr. Williams. Dr. Williams seems to be another "University School" gentleman, with peculiar notions of the professional decencies.]

DR. C. J. B. WILLIAMS' VINDICATION OF HIMSELF.

Having seen, and heard it stated in several quarters, that there were no physical signs of disease detected in the chest of my lamented colleague, I think it right, for the credit of physical diagnosis, as well as in justice to myself, to make known the results of my own examination of the case, which were (according to my custom) recorded in my note-book shortly after the observations were made.

On the attack of hemorrhage at the end of July, Mr. Liston sent for me, but unfortunately I was absent in the country, and did not return to town until three weeks after My first examination was made on the 18th of August, in the presence of Mr. Cadge (who was made acquainted with the signs which I detected) and another friend of Mr. Liston, whose name I do not recollect. At this time Mr. Liston felt no ailment whatever, and had resumed his ordinary habits of daily active exercise. The following is the note of the *positive* abnormal signs detected on exploration of the chest at this time:—

"Marked dulness above the left clavicle and scapula" (on strong percussion); "large tubular breath and voice sound in the same space; tubular expiration above upper inner angle of right scapula."

The tubular sounds here mentioned were not of that slight muffled character sometimes heard in the upper posterior regions of healthy chests (generally in thin persons), but were boldly marked and obviously morbid signs; and knowing the buoyancy of his spirit, and his propensity to dangerous exertion of strength, I hesitated not to state to my friend my conviction that there was some disease in his chest, which if not dangerous from its extent, was so from its locality, in the vicinity of great blood-vessels, the profuse hemorrhage which had occurred being a signal warning of such danger.

The precise nature of the disease was not equally evident. There was obviously deep-seated consolidation or compression of the inner part of the apex of the left lung, causing the deep dulness between the clavicle and scapula, and large tubular sounds in the same region; and the tubular expiration at the upper inner margin of the right scapula implied a similar cause, but to less extent, operating on the right side; but whether the lesion was tuberculous or other deposit at the root of the lungs, extending towards the apex of the left, or a small aneurismal tumour compressing these parts, or a morbid growth encroaching on them, could not at that period be determined. The occurrence of the profuse hemorrhage deterred me from suspecting the last to exist, and, not finding any unusual pulsation or other signs of aneurism, I then inclined to the first of these alternatives. But my earnest cautions to my friend were grounded, not on the precise nature of the disease, which was doubtful, but on the presence and position of some disease, which was not doubtful, and which, considered in connection with the previous hemorrhage, was most alarming.

But, alas! my warnings were little heeded; and, on several subsequent occasions on which we met in professional intercourse, he had always some feat of activity or strength to recount in falsification of my diagnosis. At one of these times he suggested to me that a former fracture, and consequent overlapping of the ends of the left clavicle, might cause the signs which I had heard; but my reply was, that this could not produce dulness or tubular sounds above the scapula. It is a poor consolation, but it saves me from self-reproach, that I never said anything to countenance his disposition to make light of his malady, but uniformly asserted my conviction of its serious character.

The second and last occasion on which he consulted me was early in November, during the second of a series of attacks of hoarseness, with cough and deficient expectoration, which continued to recur until the last fatal attack in December. The result of my examination at this time (I think the first week in November, but the date is not inserted) is thus recorded:—

"The same dulness in upper left, and an increase of tubular sounds, which were very loud above left scapula, and at inner margin of right scapula; *something pressing on trachea*, but no obvious pulsation." There was now evidently a tumour pressing on the trachea near its division, for the tubular sound was different from that in the larynx; and I expressed to him my fear that there would be either suppuration, hemorrhage, or increased dyspnœa, unless active means were used to reduce the internal swelling. I strongly urged him to be cupped to ten ounces above the left scapula, and to avoid every description of excitement and exertion. He did not follow this advice in any particular, but, as he told me afterwards, got relief by strong exercise in riding a restive horse, which promoted expectoration.

After this I did not see him professionally, as he placed himself under the care of physicians who, both before and after this period, found no physical signs of disease, and who, therefore, took a more favourable view of the case than I did.

The result is known, and I make no further comment on it; but I cannot close this letter without drawing the attention of your readers to the paramount importance of the supra and inter scapular regions as the field for physical signs of serious and deep-seated diseases of the lungs and great vessels. It has been the common mistake, since the time of Laennec, to search too exclusively below the clavicles; yet in five-sixths of cases of incipient diseases of the lungs, and in more than half of the cases of aneurism of the arch of the aorta, the signs are heard at an earlier period, and more distinctly, between the clavicles and scapulæ, and behind the scapulæ, than in any spot below the clavicles.

I am, Sir, &c.,
C. J. B. WILLIAMS.

Hollcs-street, Cavendish-square,
December, 1847.

DEAR DR. WILLIAMS,—You are quite wrong in supposing and stating that we "found no physical signs of disease," and "therefore took a more favourable view of the case than (you) did."

From the very first my anticipations of its ultimate event were (as many could testify) most gloomy, and so, I know, were Dr. Forbes's.

Soon after the hemorrhage, I noticed, and recorded in my note-book—which you are welcome to see—some imperfection in the breath-sounds about the upper part of the left scapula, something not quite natural also at the summit of the right, and some appreciable difference in the voice in the two supra-spinal fossæ. I then went out of town, and was absent five weeks. After my return, Mr. Liston called on me (on November 13), complaining of cough. He had then manifest shortness of breath. From that time "physical signs" were never absent. A very peculiar, rough, and loud respiratory murmur pervaded both lungs. At first, I confess I apprehended, from this sound, the rapid multiplication of small tubercles; for I had been informed that his mother, and also a sister, had died consumptive; and by these facts I interpreted the previous hemorrhage. But very soon Dr. Forbes and I convinced ourselves of the presence of some obstacle in the large and primary air-passages, whence the remarkable sound was propagated. At that time Mr. Liston was bled, with relief, and the blood was distinctly buffed and cupped. For three weeks at least before his death, our opinion (and that of every one else who saw him in our presence) was clear, that some mechanical impediment existed about the bifurcation of the trachea, or in the first divisions of the bronchi. The inspirations were comparatively facile—the expirations long, noisy, and growling. Some dysphagia also was detected, although the patient himself was reluctant to acknowledge it. Possibly (we thought) an enlarged bronchial gland, or some morbid growth, was exercising pressure there—most probably an aneurismal tumour.

Of all this, if it were worth while, several witnesses might be called.

From various phrases and sentences in your letter, which I need not cite, as well as from its whole tenour, an ordinary reader, unacquainted with the real facts of the case, could not fail to infer that we did not, as you had done, "warn" our patient; that *we* "countenanced his disposition to make light of his malady," and ought, therefore, to stand "self-reproached;" that *we* sanctioned his taking "strong exercise in riding a restive horse, which promoted expectoration;" and that, had the solemn and responsible office of advising and treating this eminent surgeon been yours instead of ours, a different "result" might have been hoped for; for you close your observations with these words:—"After this, I did not see him professionally, as he placed himself under the care of physicians who, both before and after this period, found no physical signs of disease, and who, therefore, took a more favourable view of the case than I did. The result is known, and I make no further comment on it."

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Now, the real truth is (as his family can tell you), that all our poor patient's imprudent acts were done in spite of our most earnest and reiterated remonstrances—remonstrances so urged as sometimes to make him almost angry with us, and especially with Dr. Forbes, who, living near him, saw and expostulated with him more frequently than I had opportunity of doing. Our entreaties to him to "avoid every description of excitement and exertion" were as pressing as yours could have been, only (from circumstances) much oftener repeated. We had even prevailed upon him, just before his first sudden attack of extreme dyspnœa, again to leave town for a while, that he might ensure the means of quietude. Much the same kind of treatment which you affirm would have been appropriate was counselled by us and adopted. He was cupped—twice, I think—bled twice from the arm, blistered, and kept on low diet.

In short, all the treatment that you would have recommended, we recommended; all that could be positively known concerning the disease during life, we knew as surely as yourself—viz., the certain existence of mechanical pressure about the lower part of the windpipe; and all that could be reasonably conjectured of its material cause, we saw as clearly as you did—viz., the probable existence of an aneurismal tumour.

I hope I have satisfied you that you have been greatly misinformed respecting the facts and practice upon which, directly or indirectly, you have been pleased to comment, in a tone of disparagement.

Now, was it courteous, or even fair, to publish what you have published in reference to the physicians, who could be no other than Dr. Forbes and myself, without previously ascertaining from one or the other of us whether the facts of the case really were as you understood them to be? Would it have been charitable or generous so to exhibit our mistakes, even if you were sure that we had made them? Do you indeed believe that, if our lamented patient had been intrusted solely to your care, and could have been induced implicitly to obey your directions, the fatal "result" of his disease would have been prevented?

One more question I venture, in perfect amity, to propose for your calm consideration. Is it consistent with your character—with your high rank in our profession—with your office (which presents you as an example to so many) in one of our great metropolitan schools of medicine—thus publicly and needlessly, under profession of a zeal for science, to proclaim your own superior sagacity, and (by implication) the comparative ignorance or unskilfulness of others, your contemporaries, pursuing in the same place, to the best of their humbler abilities, the same vocation with yourself, and, in this instance, engaged in the peculiarly anxious duty of ministering to the relief of a professional brother? Would Baillie or Heberden have done thus?

I remain, yours truly,

THOMAS WATSON.

Henrietta-street, Cavendish-square,
December, 1847.

POOR-LAW MEDICAL RELIEF.

[To the Editor of the Medical Times.]

SIR,—On the great question of poor-law medical remuneration, which is now engrossing the attention of so large and interested a portion of the medical profession, many are desirous of expressing their opinions as to the most efficient manner by which such object can be attained. Many have already publicly expressed their views through the medium of your columns, and doubtless many others will avail themselves of the facilities which your kindness enables them to do; I, therefore, as one, beg a small space for the few remarks which I may have to make.

In the first place I will make reference to my district as it stood on the formation of the union; then as it has stood since the alteration made by the poor-law commissioners; and, lastly, my views as to the mode of remuneration which would be satisfactory to myself and probably to many others similarly situated. First, the Pontypool Union, on its formation, was divided into two districts, viz., the Pontypool and the Usk: the former having, in addition to the union-house, nine parishes; the latter thirteen, including two hamlets as parishes. The salaries paid to the medical officers amounted to £150, being £75 to each. The Usk district was at that time attended by the gentleman whom I succeeded, and he received the above salary until a rival practitioner got some friendly guardian to propose a tender which was agreed to by the board, and my predecessor, fearing he might lose his appointment, reluctantly reduced his salary to £60, and he was again appointed, though his opponent's tender was considerably under that sum, and which was the amount paid when I succeeded to his practice. The duties were then performed by me for sixteen months, when the poor-law commissioners altered the area of the districts. From the size and duties of the Pontypool district it was necessary to form another, consequently a new one arose called "The Panteague," comprising the union-house, seven parishes of the old district, and a hamlet taken from mine, leaving two large parishes for the original district. In order to make up a salary for the additional medical officer £30 were taken from the other gentleman's salary, with half his duties; and for the one hamlet, about four miles from my house, and belonging to the parish of Usk, the unjust sum of £15, so as to equalize the salaries of all, viz., £45; so that for the twelve parishes I do not get at the rate of £4 each, and one of them, a widely scattered parish, extending to the distance of eight miles from my house. Yet, for the duties of the hamlet which was taken (and from which, during the sixteen months I had it, there were not more than four persons ill), the estimate for such annual attendance was £15. I wrote to the commissioners, representing the case, and begging them to back my application to the guardians for redress, and which they kindly did, but the latter did not think fit to alter the resolution they had previously decided on. I make no complaints of our guardians (beyond that act which has, up to this time, annoyed me much), because we have gone on smoothly together, there having been no cause, during the six years I have attended my district, to bring about a misunderstanding between us.

I now offer my views as to remuneration for services. According to the old system of paying medical men for attendance on the parochial poor, the appointment was generally given to that individual who would tender for the lowest rate of remuneration or, rather, payment, I should say, for no one could call it remuneration. I have in former years, whilst residing in Devonshire, had the charge of paupers, and, though I have contracted to attend at a very low figure, yet I never was paid at such a minimum rate as I am at present. Formerly each parish contracted to pay a medical man for his attendance at a certain sum per annum, and such now I hold to be the best plan of arrangement. I conceive that, if the Government should think fit hereafter to take the management of unions into their hands, it might be more satisfactory to those practitioners residing in agricultural districts if the following plan were adopted. I will take my own district, for example, and, in order to explain myself more intelligibly, I will give a list of parishes in it, with the distances from my house, and then attach an annual payment for each, thus making the aggregate amount the payment for the whole district; each parish, as in former times, to pay the sum fixed for each according to population and distance, which I should think would (or at least ought to) be satisfactory to the guardians and to the medical officers in attendance.

NAMES OF PARISHES, AND EXTENT OF DISTANCES FROM MY HOUSE.

Parish.	Miles.	Population.	Presumed Amt. of payment for Parish.
Gwehellog ..	3¼ ..	353 ..	£ 5
Kemeys Commander	3 ..	81 ..	2
Llanbaddock ..	3¼ ..	457 ..	7
Llantrissent ..	4 ..	329 ..	7
Llangaview and Gwernesney	2½ 2¾	242 ..	5 4
Llangibby ..	4¼ ..	535 ..	7
Llanthowel ..	2¼ ..	105 ..	5
Monkswood ..	3¼ ..	166 ..	7
Goytrey ..	8 ..	566 ..	15
Trostrey ..	3 ..	196 ..	6
Usk	— ..	1525 ..	15
Total ..		4558 Total	£85 as a fixed salary, exclusive of fees.

Taking the above as a fair and reasonable calculation (and which, I think, all who read this will assent to), you will observe the aggregate amount would leave a fixed salary of £85, being £40 in addition to what I am at present receiving, exclusive of extras. Touching the latter, I consider they should still be in force; but, if they were extended to other operations in surgery than at present allowed by the poor-law commissioners, the profession would be more satisfied. In my arrangement I presume the extra fees still to exist, or, in the event of their being abolished, that each parish in the union should (in proportion to its population) pay an additional sum in lieu of them. Touching the "per case" system, which has been adverted to by some, I, for one, most decidedly object to it, for I am convinced it will never answer the ends some may have in view.

Apologizing for trespassing so long—in fact, much longer than I had intended,

I remain, Sir, your obedient servant,

HENRY GREATWOOD, M.B.C.S.

Usk, Monmouthshire, Dec. 18.

[To the Editor of the Medical Times.]

SIR,—Having read lately a good deal in your *Medical Times* respecting the payment of the medical officers of the various unions in England, and wishing good success to the efforts now making for the benefit of both the sick poor and their medical attendants, I trust you will excuse my troubling you with this letter on the subject, having myself had the medical charge of nine or ten parishes for the last 30 years. The old system had its evils. The surgeons were certainly better paid, but then they only got their money once a year, and that sometimes months after it was due, and after many calls and journeys for it, and indeed then it often came as a great favour from the overseer, as if he was giving you so much money for nothing.

With regard to the Dowhaam union, to which I belong, it is my conscientious opinion, that, in the first instance, Dr. Kaye (the commissioner) and the guardians fully intended and expected they had paid their medical officers liberally; and so they had if we could have claimed our bargain, if I may use the term; but it was impossible; the intentions of Dr. Kaye and the guardians were frustrated almost immediately, and in the following way: as soon as the surgeons were elected they appeared before the board, and Dr. Kaye thus addressed them:—"Gentlemen, I am aware your salaries will be much smaller than heretofore, but then your labours will be very much lighter, inasmuch as you will be called upon only to attend upon the paupers and the casual poor, such as strollers and vagrants, who may happen to fall ill in your districts. All the able-bodied or independent labourers and mechanics must pay you themselves, or else go into your medical clubs, forms for which you will be furnished with by the poor-law commissioners; and, moreover, to save you unnecessary trouble, you are not obliged to attend unless you have a written order, either from the relieving officer, a churchwarden, or a magistrate."

So far so good, and I for one was perfectly satisfied. But now came the difficulty of fulfilling our engagements. Some of the able-bodied and independent labourers and artisans stoutly and resolutely refused to pay us, or to go into our clubs; saying, they "always had been doctored by the parish, and they would lie and die if they had no doctor found them." Some, a good many, availed themselves of the clubs, and if all who were expected by the guardians and Dr. Kaye had entered the clubs, and paid up properly, they would have answered, and we should have been fairly remunerated. The facts are otherwise: hundreds of refractory, lazy fellows absolutely refused to pay in any way; and when they became ill their relatives told a piteous tale to the churchwarden or relieving-officer, stating that their husbands, wives, or children, as the case might be, "laid dying for want of a doctor, and they had no money, but if they had an order this time they would in future go into the doctor's club." They all got orders, and they not only did not join the club when recovered, but actually upbraided those who were in for paying, asserting, "They (the guardians) dare not let them lie and be lost." Here was the first injustice done us; we had to attend all these refractory fellows and their families, over and above the regular paupers. The churchwardens did the agreeable acts of charity by giving these people orders upon us to attend them. This evil began the first year, and has been increasing ever since. The club patients saw others got medical relief without paying for it, and they retired from the clubs in great numbers, and you could hardly blame them. The next thing was, that guardians and overseers were allowed to give orders for the doctor; and I have frequently had orders written by children, for the overseers (who could neither read nor write) for me to attend anybody, no matter who, that chose to apply to these men, literally only one step above, and some as poor and badly off as their applicants.

It is not only agreeable in a charitable point of view to give relief in this way, but it is flattering to

these people's feelings to have the power of ordering the doctor to attend, and they do it in all cases, without taking the trouble to ask if the parties are in the club, or otherwise proper objects of charity. I have often complained of this, and the only answer I could get, was "You must get them into your club," without giving me the power of enforcing them to enter, which the guardians might easily have done, as I suggested to them, in the following way, namely, by giving a discretionary power to the churchwardens and others empowered to give orders for the doctor, to give all these refractory people, whether husbands, wives, or children, an order for the house until they recovered. If the guardians had done this, not one in fifty would have accepted the order, and they would soon have been tired of suffering pain and sickness without medical aid, and all would have contrived to pay their shilling, eighteenpence, or two shillings a quarter, according to the size of the family; nor could the guardians have been accused of cruelty, for they actually would have not only offered medical aid but a house too, to those who obstinately refused to help themselves; and to prevent the danger of removal the officer might require a certificate from the surgeon, that the case admitted of removing to the union house.

This step would have settled the matter in twelve months, and all the independent poor would have been enrolled in the commissioners' medical clubs, and Dr. Kaye's plan would have been carried out satisfactorily to all parties; and, after all, if it was found, as I think it would have been, that independent labourers, with four, five, or six children under a certain age, ought always to be considered eligible for medical relief, the average number of such in each district should have been ascertained, and ordered on the books of the house, and a suitable addition made to the salary of the medical officer to cover these extra cases, not coming under the title of paupers. I declare solemnly, I attend as many poor now as I did before the union was established, and that orders are as easily obtained; in fact, they are never refused to any one who chooses to apply. Another thing Dr. Kaye told us, "that all young single men and women above sixteen were considered independent poor, and that they must pay their own doctor, or go into his club, and pay one shilling per quarter." This is never done; they all get orders. Moreover, all agricultural servants, male and female, whose wages were under £6 per annum, were invited to go into the clubs; but this is not done, and hundreds of this class of people, who are taken ill while in service, are sent home to their parents to recover, and invariably get orders for the parish doctor, even while they are actually hired servants.

Nobody thinks of compelling the rich to employ doctors, and some never do, and they certainly have a right to refuse if they please; and why not give these obstinate poor the same option? and, if in sickness they repent, let them go to the house, as the only means you can give them; they will soon gladly fly to the medical clubs. On the other hand, if we are to attend all, as heretofore, then, in justice, give us our former salaries. After thirty years' experience, I believe this is the only plan that will succeed. It may appear at first sight harsh, but it must be remembered, it is only applied to those who will not help themselves, and that that number is small; but, by their counsel and example, the well-disposed have fallen in with them, and, indeed, you cannot wonder at it. If those who refuse to pay get the same medical relief gratis, it naturally makes the others dissatisfied. Had Dr. Kaye adopted this method of enforcing his plan of medical relief, I believe the medical officers of every union he superintended would have been well satisfied; the fault was not in the system, but in allowing it to be upset by a few refractory poor.

I am, Sir, your obedient servant,

Worthington, Dec. 18. W. JOHNSON.

P.S. Dr. Kaye awarded £300 for the medical relief of thirty-two parishes, including the union-house in the centre. I think it was so much per head, according to the population.

DR. WILLIAMS AND THE STETHOSCOPE.

[To the Editor of the Medical Times.]

SIR,—Dr. Williams having deemed it wise to address the public in defence of his own character as a patron of auscultation, he has laid himself open to animadversions; and being no amateur of the stethoscope, and no admirer of the principle on which many of its advocates make use of it and seem to be guided, I am glad to take so favourable an opportunity as the present to add my endeavours to expose its fallacies.

Since the notorious case of Lady Flora Hastings, who died of an enlargement of the liver, and who was pronounced by the royal physician to have a pregnant uterus, after repeated stethoscopic and other such modes of examination, there has since been no instance brought before the public of gross ignorance so truly lamentable and so startling to the profession as that of the unfortunate Mr. Liston.

The moment I commenced the perusal of the learned doctor's epistle, I was reminded of the observation of an old and experienced police-officer, who, when about to interrogate all the servants of a household after a robbery had been committed, observed, "that the guilty one was sure to commit himself by speaking first, provided they were all brought into the room at the same time."

Dr. Williams lost no time in writing first, and, like the apology of a man who has got into difficulties, his letter is a piece of special pleading.

The doctor wishes to impress upon the reader that he made no mistake in the ever-to-be-lamented case of the late Mr. Liston, and to prove this he quotes "my own note-book," which, it must be allowed, is a most excellent specimen of a stethoscopic diary.

In the first place, it is impossible not to be surprised that "my note-book"—which professes to contain the state of a patient—should not contain one word of any of Mr. Liston's symptoms—not a word of his paroxysms of dyspnœa—his difficult deglutition—the state of the arterial pulse in the two arms—or the history of the symptoms. In short, the whole attention of the learned doctor seems to have been directed to the physical signs, and never could there have been brought forward a more striking proof of the fallacy of a stethoscopic examination; and I am told that the reason of Mr. Liston's declining any further professional visits from the eminent stethoscopist arose from an observation he made, that the most striking feature in the case was a disparity in the two sides of the chest; to which Mr. Liston sneeringly replied—"If that's the upshot of the examination, it's nothing at all. Why, man, I once broke my collar-bone, and so that side is like to be more concave."

Windsor, Dec. 26. HUMANITAS.

THE QUACK CASE.

[To the Editor of the Medical Times.]

SIR,—Your plain version of facts respecting the case of quackery deserves the warmest thanks of every honourable-minded man in the profession, ay, in the community. The operator clearly applied a ligature on the main artery of a limb for the cure of a malignant disease! This is clear: for we are told that there was "sloughing of the muscles of the forearm, terminating in fungus hæmatodes." With such doings and sayings, is it not a scandal to the medical press of a civilized country that such a vehicle as the *Lancet* should meet even with the limited support which it has?

A SURGEON.

A WORD ON AUSCULTATION.

[To the Editor of the Medical Times.]

SIR,—The *Medical Times* of December 19 contains an able communication from the pen of a correspondent, in which he seems to underrate the importance of auscultation, in connection with the medical attendants of the late eminent surgeon to whom it refers.

It strikes me that nothing can be more at variance with the physics and the philosophy of medicine than to maintain that, because an error has been committed by the most zealous cultivators of those sciences in having attached too much weight to physical signs and too little weight to general symptoms, therefore, the relative value of the one more than compensates for the want of the other.

The following case will serve the purpose which I have in view better than any arguments which I might adduce. A married woman, aged forty, the mother of seven children, for the first time complained of pain and uneasiness in the right hypochondriac, and umbilical regions; these symptoms showing themselves in the latter months of pregnancy. In a few days after an easy confinement she presented herself as an out-patient to the writer, at a provincial infirmary, in the following condition: She was sallow-looking, but not emaciated, complaining of weakness, palpitation of the heart, and abdominal pain and tenderness. On examining the abdomen, a large prominent tumour was observed to be bulging outwards beneath the right false ribs; this presented no irregularities; it was extremely tender when gently handled; there was no fluid in the abdomen, no jaundice, nor dulness upon percussing the iliac regions; the uterus was healthy upon a vaginal examination; there was slight œdema of the lower extremities. On examining the chest, percussion betokened an unusual extent of dulness over the lower end of the sternum, scrobiculus cordis, and to the left of the sternum; but she referred little or no pain to this region.

She was not seen again for many months, nor anything heard of her. When she presented herself as an in-patient she had ascites, and anasarca of the lower extremities, the latter having preceded the former by some months; she was harassed with difficulty of breathing amounting to orthopnœa; pulse weak and intermitting; upon percussion, both sides of the chest sounded dull, especially the left side; the healthy breathing, but mixed with crepitus, was limited to the upper regions, as she lay supine, Behind there was absolute dulness below the right scapula, and over the left scapula there was audible bronchophony and large crepitation. On auscultating the heart, a loud rasping sound was audible along the whole extent of the sternum, reaching upwards in front, along the tract of the carotid arteries, being equally distinct also over the cervical region behind, and downwards along the spine; profuse hæmoptysis supervened, which continued till her death, five days afterwards.

A sagacious observer, unskilled in auscultation, would, I imagine, fail in solving a train of symptoms so anomalous. At the commencement he would doubtless attribute the anasarca to the liver enlarged by some foreign growths, and towards the termination would refer the hæmoptysis to the presence of tubercles on the lungs, or to some other pulmonary lesion; the orthopnœa and intermitting pulse, to hydro-thorax and hydro-pericardium. On the other hand, an accurate observer, skilled in auscultation, would, doubtless, in the absence of signs of renal and hepatic disease, in conjunction with aortic regurgitation, infer that the dulness in the region of the heart was owing to thickening of its walls and dilatation of its cavities; and in the latter stages the increased dropsy, the loud rasping bellows sound, audible in almost every part of the chest in front, back of the neck, and down the spine behind; the condensed condition of the lungs, and the profuse hæmoptysis, not localized to particular spots, indicated everywhere by crepitus mixed with healthy breathing: all these analysed would lead him to look to the heart as the cause of disorder, and anticipate the others as the effects.

On examination after death the heart was found to be about four times as large as the closed fist; one of the aortic semilunar valves had been destroyed; the calibre of the thoracic aorta was three times its normal size, its coats extensively ossified; the lungs free from tubercles, the left lung, when sliced, looking exactly like "apopletic lung," portions of it hardly floating in water; the liver was healthy, but displaced during life by the hypertrophied heart.

In this, as in all incurable diseases, correct diagnosis may be of no advantage to the patient; but there is this consolation, that we know the less we do the better; we can promise nothing more than affording temporary relief. The value of auscultation, however, is best seen, not in detecting small and deep-seated aortic aneurisms, simulating chronic laryngitis, laryngismus stridulus, and many others, admitted by physicians as occurring in conjunction with aortic aneurisms, although not necessarily indicative of that disease; but in diagnosing pneumonia, pleurisy, and pericarditis, the latter often before the patient's attention is directed to the complication, and in this manner enables the practitioner to direct his remedies to subdue the disease at its onset.

I will not trespass further upon your valuable pages, but beg to remain,

Yours obediently,

CHIRURGUS.

THE NEW INCORPORATION.

TO THE RIGHT HONOURABLE SIR GEORGE GREY, BART., HER MAJESTY'S PRINCIPAL SECRETARY OF STATE FOR THE HOME DEPARTMENT.

The Memorial of the President, Vice-Presidents, and Council of the National Institute of Medicine, Surgery, and Midwifery,

Showeth,—

That your memorialists were duly elected the representative Council of the National Institute

August, 1847, and that they represent the opinions of above four thousand of the general practitioners of England and Wales.

That, upon a former occasion, the previous Council of the National Institute had the honour of presenting a memorial, bearing date Dec. 24, 1846, to her Majesty's Principal Secretary of State for the Home Department, in which memorial the opinions and sentiments of the class of medical practitioners whom your memorialists represent were carefully and deliberately stated. That the statements contained in that memorial were subsequently explained and confirmed by a deputation from the said Council of the Institute, in an interview with the Right Honourable Sir George Grey, Bart., at the Home-office, on Friday, February 5, 1847, and your memorialists fully believe that at that interview the deputation were enabled so far to convince the Right Honourable the Secretary of State of their truth and importance as to elicit the assurance that the Council should be admitted concurrent parties to any measure of medical reform that may be adopted by the Government.

That your memorialists fully concur in the propriety of the recommendation conveyed to them and to others of their medical brethren from the same influential quarter, to the effect that it would be desirable that the members of the medical profession should themselves meet and agree upon some general plan, prior to the Government undertaking to introduce a bill before Parliament for the revision of the laws affecting the medical profession. That your memorialists have ever been most anxious to promote the views contained in that recommendation, and have been willing and prepared to meet any authorized parties representing the existing medical institutions, and to discuss any plan that might be submitted, in the most amicable spirit, and with the most sincere desire to obtain such a settlement of this highly important question as may conduce to the public welfare and the peace and tranquillity of the profession.

That your memorialists deeply regret that the advice alluded to has not been acted upon, and that the benevolent intentions of the Government have not been reciprocated in those quarters from whence an immediate proposition for a conference should have emanated.

That your memorialists are fully persuaded that daily increasing evils press upon the people of these realms in consequence of the laws by which the medical institutions of the country are governed, having been found by experience to be quite inadequate to the wants of the public, and from their charters having become in a great degree obsolete. That before any efficient measure affecting the public health or sanitary improvement can be successfully carried into effect, medical reform appears to be an essential preliminary step, and your memorialists can never too strongly impress upon the Government and the Legislature that the medical question is quite as important to the community as it is to the medical profession itself.

That in the opinion of your memorialists the only way to arrive at a satisfactory settlement of the affairs of the medical profession will be in the first instance to incorporate, by royal charter, the general practitioners in a College of Medicine, Surgery, and Midwifery.

That your memorialists respectfully beg it to be borne in mind that the general practitioners constitute at least nine-tenths of the medical profession; that the duties which devolve upon them are of vital importance to the public; and that no act of the Legislature, or of the corporations, can prevent by far the largest portion of the public from being intrusted to their exclusive professional care. That the attainments of the present race of general practitioners are of the highest order, and are highly honourable to the profession, but that their position is most grievous and anomalous, from being excluded from the benefits and respectability of a legal incorporation.

That your memorialists entertain a confident hope that they have succeeded in convincing the Right Honourable the Secretary of State of the just claims of the highly meritorious body they represent, to a legally recognised position; and your memorialists fully trust that those arguments which were found successful with a former Government, and which were so far acted upon as to have induced a former Secretary of State to state in his place in Parliament his intention to incorporate by royal charter the general practitioners, may have lost none of their force, or be less conclusive than formerly of the justice of their claims, and of the paramount necessity of this preliminary measure being forthwith adopted.

That, in conclusion, your memorialists beg respectfully, yet most emphatically, to reiterate their grave and deliberate opinion that it would tend materially to the advancement of science, to the welfare of the community, and to the best interests of the medical profession, if the prayer of this memorial were graciously acceded to, by which the general practitioners would be duly recognised, and, by a properly defined title, be placed amongst the medical institutions of this enlightened country.

(Signed) R. R. PENNINGTON, President.

The National Institute of Medicine, Surgery, and Midwifery, 4, Hanover-square, Dec. 8.

FACTS AND ARGUMENTS IN SUPPORT OF "THE HUMANE SYSTEM OF NON-RESTRAINT AND NON-SECLUSION."

By WILLIAM SMITH, M.R.C.S.E.,

Formerly House-Surgeon to the Lincoln Lunatic Asylum, Member of the Association of Medical Officers of Hospitals for the Insane.

"Nil sine magno
"Vita labore dedit mortalibus."—Hor.

(Continued from p. 155.)

In my last communication I merely quoted a number of extracts from various publications which have emanated from some of the largest and best conducted lunatic hospitals in the kingdom. I propose in the present paper to enter more minutely into the charges brought by Dr. Nicholson against "the humane system of non-restraint and non-seclusion." But, whilst doing so, I wish it to be distinctly understood, that I by no means cordially approve of all the arrangements connected with the *peculiar* management of Lincoln. This much, however, I am disposed to maintain, that the Lincoln Asylum, with all its defects (and they are by no means few), has been the pioneer in most of the grand improvements introduced of late years into the management of our public lunatic hospitals.

But to discuss Dr. Nicholson's assertions. He says, "When Dr. Charlesworth first set sail in the 'total abolition' bark, he classified his passengers, his craft was well manned with attendants, and seclusion was his rudder, by means of which he kept his course midst a stormy sea; but in an evil hour he abandoned his helm, and, since then, his vessel has been unmanageable, and nothing but disasters have befallen it; and now, rather than resume the pilotage, he prefers shipwreck." If Dr. Nicholson will take the trouble to descend from the lofty regions of metaphor, I will endeavour to prove, by a plain statement of facts, that he has taken up a position which is wholly untenable. *Dr. Charlesworth (as also Dr. Elmhirst, and many other governors resident in Lincoln) became a strong supporter of the non-seclusion system in consequence of having witnessed the rapid and almost miraculous improvement which took place in the moral condition of the far-famed C. A. and other refractory patients on being released entirely from seclusion.* Now, when it is borne in mind that this experiment, and the happy results produced thereby, *actually took place during my house-surgeoncy, and not years prior to Dr. Nicholson's taking up his residence in Lincoln*, I think every candid person will admit that I am the most likely to be conversant with the facts. My own impression (the result of practical experience) is, that *solitary confinement* or *seclusion* is calculated to exercise a more prejudicial influence upon the moral and physical condition of the insane than even *mechanical restraint*, and it was in consequence of witnessing the bad effects produced upon C. A. by solitary confinement that I determined upon the attempt to procure its abolition; moreover, if my memory be correct, I think the annals of our public gaols will prove that persons who have undergone *solitary confinement* for any lengthened period have, in numerous instances, become afflicted with mental derangement to a greater or less degree. *The non-seclusion system, like its predecessor, non-restraint, was not adopted by the Lincoln governors as the result of mere theory, but from practical experience, and not without mature deliberation.* It will not, perhaps, be deemed extraneous to the present discussion for me to introduce in this place some of the documents by which the boards were induced to give their official sanction to the system. With this view I shall proceed to quote two letters, addressed by me to the boards, relative to non-seclusion.

"Lincoln Lunatic Asylum, Oct. 25, 1841.

"Gentlemen,—In pursuance of my pledge to the board (Sept. 6th ult.), I beg leave to state that I have, throughout the last six weeks, released C. A. entirely from her state of seclusion; and that I now feel myself competent to her future management, without further recourse to such means; her improved general demeanour and increased tractability having proved favourable to this conclusion. The success of the experiment, and the reflections to which the case of this patient has given rise, have impressed me with a conviction that solitary confinement, as a means of control, may be as successfully and usefully dispensed with in this institution, under well-disposed and practised attendants and vigilant superintendence, as instrumental restraint has already been; and I have, with the knowledge of the board, commenced the undertaking. I shall continue steadily to watch the proceeding, that I may be enabled to record faithfully the results, for the satisfaction of the board; and having found that more than usual vigilance will, for a time, be indispensable towards securing the co-operation of the attendants who had, before I had gained confidence to judge for myself, become accustomed to rely upon seclusion, instead of increased attention, in troublesome cases. The answers elicited from nurses recently examined before the boards, touching this point, expose the unsoundness of the practice, from which I have departed to take my stand, I trust, on firmer ground. Lunatic violence, under sudden impulse, must be expected in lunatic asylums, and never can be totally suppressed, except by perpetual restraint or perpetual seclusion, far more injurious and distressing than an occasional blow under temporary excitement. Moreover, the official books exhibit evidence, weekly, of violent collisions during the long period of C. A.'s seclusion, and the general employment of this agent proving its inefficacy as a source of protection.

"I remain, gentlemen,
"Your respectful and obedient servant,
"W. SMITH, House-surgeon.

"To the Weekly Board of the Lincoln Lunatic Asylum."

This letter was entered upon the minutes, by order of the board, so that every governor who visited the establishment, and inspected the books lying on the board-room table, was cognizant of the experiment which was being made. At that period, as well as more recently, there was a difference of opinion amongst the members of the medical staff of the asylum relative to *mechanical* restraint. The late Dr. W. D. Cookson, one of the physicians, entertained views similar to those at present advocated by Dr. Nicholson; but mark the result. Dr. Cookson watched attentively the practical working of the system, frequently expending many hours daily in the asylum, until at length, being convinced of its entire practicability (with a candour and liberality which will ever reflect the highest honour upon his memory), he gave up all his preconceived notions on the subject, and, almost amongst the latest acts of his professional career, *declared himself* (in the official books) *a convert to the humane system of non-restraint and non-seclusion.* The system was found to work admirably, and a most decided improvement occurred, more especially in the refractory wards. More than four months having elapsed, and nothing having occurred to shake my confidence as to the complete utility and practicability of the measure—the attendants, moreover, having quietly fallen into the habit of increased attention required under the disuse of seclusion—I addressed a second letter on the subject to the General Quarterly Board, holden in January, as follows:—

"Lincoln Lunatic Asylum, Jan. 2, 1842.

"Gentlemen,—I feel it to be a duty I owe to the board to communicate to them the result of

the experiment, which I undertook to make four months since, with regard to the practicability of managing C. A. without a further continuance of solitary confinement; and I have great pleasure in being able to state that success, even beyond my most sanguine expectations, has attended the attempt. The moral condition of this patient has been gradually improving ever since her release from seclusion, without a single instance of its repetition; and, after a few outbreaks in the commencement of the change in her treatment, she has become tractable, good-natured, sensible of kindness, conscious of approbation, accompanies her attendant in walks into the country or on business with the shops in the town, and mixes harmlessly and happily with the other patients at their monthly tea-drinkings and dances. I have also great pleasure in stating further, that my experiment of abolishing altogether solitary confinement in this institution, undertaken at the same period as the experiment with C. A., has proved equally successful; and the extraordinary improvement which has followed in the good order of the north galleries, remarked upon by the official visitors and by strangers, confirms my belief that this practice may be safely and, I trust, advantageously introduced into other asylums, as an accompaniment and part of the humane system of the disuse of instruments—a system now in the course of being adopted throughout the kingdom.

"I remain, gentlemen,

"Your respectful and obedient servant,

WM. SMITH, House-surgeon.

"To the General Board of the Lincoln Lunatic Asylum."

Now, what are we to understand by Dr. Nicholson's assertion, "But in an evil hour he abandoned his helm, and, since then, his vessel has been unmanageable, and nothing but disasters have befallen it," &c.? I would ask Dr. Nicholson, in what state I left the asylum on entering upon the duties of house-surgeon to the Lincoln County Hospital in January, 1843? Was not the establishment in a tranquil, orderly, and creditable condition, and "well manned" with humane and experienced attendants? And further, did not the late Dr. Cookson (who had been one of the most strenuous opponents of the humane system of non-restraint and non-seclusion) visit the hospital on the day of election, for the express purpose of securing me a vote, thereby proving the favourable opinion he entertained of my management of the patients in the asylum? Did not my immediate successor, Mr. Wm. Graham, carry out the system (introduced by me) during the whole of his house-surgeoncy? Has not Mr. Walsh, the present house-surgeon, strictly adhered to the same system? Did not the late Dr. W. D. Cookson, who had been for ten years and a half physician to the asylum (and consequently more experienced by far than Dr. Nicholson himself), become a convert to this very system, after having carefully watched its operation? If all these facts can be proved, and, undoubtedly, a reference to the official books of the asylum would place the matter beyond the probability of a doubt, what becomes of the position taken up by Dr. Nicholson?

Dr. Nicholson further remarks, "The governors of the Lincoln Asylum have erred in introducing the 'non-restraint system.' As a general rule of practice, they have erred in prohibiting seclusion; and they have most grievously committed themselves in abolishing all classification." Now, with all due deference to the doctor (whose practical experience of the habits of the insane has not been so extensive as my own), I must beg to differ with him *toto cœlo*, and that too on all the points at issue. The "non-restraint system" has stood the test of *ten years and a half's experience at Lincoln*, and, probably, in no institution have its merits been more severely tested than at its original birthplace. At the *Hanwell Asylum* (*latterly with an average of* 1000 *patients*) it has been in constant operation *for more than seven years. At Lancaster* (*containing* 700 *patients*) the humane system has never been infringed upon since its adoption. At *Gartnavel, near Glasgow*, a noble asylum has been erected, with the express intention, on the part of its directors, "*that no bodily mechanical restraint shall ever be used in it*" (I quote from the Fourth Report of Dr. Conolly, page 174); and under the able management of its talented physician, Dr. William Hutchison, that intention has hitherto been most strictly adhered to. I might mention the *Northampton General Lunatic Asylum*, the *Gloucester*, and many other large and well-conducted public hospitals for the insane, where the system has been for several years in successful operation; in fact, there is not a single establishment (to the best of my knowledge) where the system, once fairly set in operation, has ever been abandoned; and I feel that confidence in the moral firmness of the Lincoln governors, that they will not permit a system which has conferred so many benefits upon the insane to be strangled at its fountain head. I would further remark, that the operation of the "humane system" has not stopped at this point; *the history of the Royal Hospital of Bethlem, of Wakefield, Nottingham, and many other public lunatic hospitals, has clearly demonstrated the fact, that this system has had a much more extended range of usefulness. The force of public opinion, the pressure from without, has compelled those establishments to diminish very materially the amount of mechanical restraint employed. The reports of several public asylums* (which I have read attentively) *strongly denounced the system at its commencement as absurd, visionary, and utopian; whilst others, even still more inconsistent, actually adopted the practice, whilst they faintly contested the theory.*

On reference to the Physicians' Report of Bethlem Hospital for the year 1845, pages 11 and 12, I find the following remarks:—"Great pains have been employed to reduce the ratio of restraint as far as possible, compatibly with the safety of the patients, and those about them. The proportion, which appeared in the last general report to have been—

In 1839 ..	11 3/12	In 1842 ..	3
1840 ..	13 10/12	1843 ..	3 4/12
1841 ..	9	1844 ..	1 3/12

stands in the year 1845 at 1 10/12.

No instance whatever of suicide has occurred during the year, nor have any cases arisen which have rendered inquests necessary—a circumstance peculiarly satisfactory to the officers of a public institution." The "non-restraint system" has even gone a step further, for, by means of the free and animated discussions which took place in the medical journals, *it has tended to disabuse the public mind relative "to the popular belief in the ungovernable ferocity of the insane,"—a belief "encouraged by persons more studious of their own ease and enjoyment than that of the patients intrusted to their care;" it has tended very materially to correct such prejudices, and their evil consequences, "by opening examples of a milder management to the inspection of society, which has a deep personal concern in the mild or harsh treatment of a complaint which may affect any, either personally or through relatives and friends;" it has banished from the wards of our well-regulated lunatic hospitals those diabolical and filth-engendering contrivances termed restraint-chairs, wherein formerly might have been seen unhappy patients strapped down in rows (like cattle at Smithfield, or malefactors in the pillory), deprived of the slightest motion of their cramped extremities, incapacitated from attending to the calls of nature, and thus (of necessity) rendered drivellers and loathsome objects to every one about them!* Is Dr. Nicholson desirous of reviving the horrors and atrocities of *old Bedlam* and the *York Asylum*? With reference to "non-seclusion" Dr. Nicholson is merely reiterating one of the vapid complaints of the Commissioners in Lunacy, who remark, "There is no room where a violent patient can be secluded." The governors of the Lincoln Asylum, in their counter-statement, observe:—"If by seclusion the two visiting commissioners mean 'solitary confinement,' it should be observed that such rooms formerly existed, and have been intentionally abolished; the violence of patients is now readily controlled by the watchfulness of attendants, rendering solitary confinement totally unnecessary. The Lincoln board prides itself upon the abolition of seclusion as a means of control, considering this improvement as next in importance to the abolition of instrumental restraint; requiring, indeed, like the former improvement, a liberal supply of attendants not distracted by other employments."

In consequence of the length to which these observations have extended, I am compelled to cut short the present paper. Should the editor, however, permit me space for another communication, it will be my object to discuss, as briefly as possible, the arguments of Dr. Nicholson relative to the motives of the governors "in abolishing all classification of the patients," and to offer a few remarks relative to the cases of the late John Cottingham and Dixon.

King-street, Belper, Dec. 15.

CASE OF BURN.—DEATH.

Communicated by JOHN COGHLAN, M.D., Wexford.

On the 20th ult., about ten o'clock at night, a servant maid discovered a fire in the top of a workshop, five stories high, at the rear of the dwelling-house of the respectable firm of Jones and Sons, cabinet-makers, of Wexford. She immediately gave the alarm, when two young men, brothers, and their father, ran together to the workshop and mounted the stair, the younger brother taking the lead till they reached the fourth story; when, seeing some shavings on fire, he stopped to throw over them a table-top, which lay in the way. The elder, in the mean time, ran up the ladder which led to the top, where the fire originated, and had only time to be fairly up, when the younger brother, who followed, hearing him groan, rushed through the smoke to where he was, and found him lying across a bench in a state of insensibility. He seized him round the waist, and by a great effort carried him down, and left him in charge with his father. Shortly afterwards Dr. Goodall and I saw him, and found his face, eyes, interior of the nose, tip of the tongue, and side of the neck superficially burned; his hands and half up the forearms completely denuded of cuticle. On taking off his clothes, we found one shoulder and side, the arms, hips, thighs, and legs, to the ankles, extensively burned in large patches, of different degrees of severity, though the clothes were not even marked by fire, except slightly on the cuffs of his coat. When we saw him he had recovered consciousness, but could give no account of what occurred after his going up the ladder. In the progress of the case there was nothing unusual; the parts were dressed with raw cotton, and he recovered from the state of collapse under the use of mild stimulants. On the following day we found him blind, from effusion under the conjunctival covering of the cornea, and with bronchitis occupying both sides of his chest. The bronchitis increased and terminated his existence on Wednesday last, the eleventh day from the receipt of the injuries. The fire, I should mention, originated (they know not how) among tightly-packed wood shavings, and was got under without extending beyond them.

Now, the points in the case which I find difficult of explanation are,—First, how he became so suddenly asphyxyated; the evidence of his brother, father, and servant, going to prove that he was not twenty seconds in the room, and his brother, who followed immediately after, escaping uninjured; and then, how he came to be so extensively burned on the parts covered by his clothes. It has occurred to me, that the steam arising from, perhaps, damp shavings was the cause of the mischief; but, then, that would not account for his being burned in patches, and so deeply, in so short a time, for there was a patch on his shoulder as large as the hand, burned to the third degree of Dupuytren at least.

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SUCCESSFUL FORCEPS CASE UNDER THE INFLUENCE OF CHLOROFORM.

By ALEXANDER TYLER, M.D.L., K. and Q.C.P.I., Lecturer on Midwifery, &c.

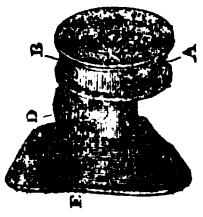
Mrs. M., residing in Bishop-street, Dublin, aged 35, mother of seven children, all born naturally, and now alive; once had twins; former labours averaging from ten to twelve hours in duration; children large, and the heads considerably elongated when born. First complained of pains in her back on Saturday evening, the 18th of Dec., 1847, accompanied with a bloody mucous show. Uterine action did not set in brisk until next evening. When Mr. Dormer first saw her, at two A.M. on Monday morning, the os uteri was dilated to the size of a shilling; at six A.M. it was as large as a crownpiece; when, being satisfied that the head presented, he ruptured the membranes and allowed a large quantity of liquor amnii to escape. Some hours afterwards he administered the secale cornutum, with the desired effect of exciting powerful uterine action, which continued with little intermission until three P.M., when I was requested to see her. On examination I found the presenting part high up, occupying the brim of the pelvis, where, Mr. Dormer informed me, it had been for several hours without any advance being made. Her pulse was 110; tongue foul; expression of countenance anxious. I deferred interfering for another hour, when, finding that in the mean time no advance had been made, although the pains were constant and severe, I decided on delivering with the forceps, the woman's condition being evidently worse, and requiring speedy relief. She was previous to the operation put under the influence of chloroform, and whilst insensible I delivered her safely of a large female child, alive. The soporific effects of the chloroform continued for twenty minutes after, until the placenta was expelled by the contractions of the uterus, assisted by the firm pressure of the hand over the fundus. Soon after she recovered her senses, but was totally unaware of what had passed. This woman had been in bad health for some months back, and when her labour supervened was only recovering from the prevailing epidemic, influenza.

A NEW INSTRUMENT FOR THE INHALATION OF THE VAPOUR OF CHLOROFORM.

Invented by C. STOKES, Esq., Dental Surgeon, M.R.C.S.

The very general use of the vapour of chloroform as an anæsthetic agent has induced me to turn my attention to the construction of an instrument in which should be combined the advantages of facility in application and certainty of effect.

It is an objection, practically well founded, that, when chloroform is administered through the medium of a piece of linen or a sponge, contact with the skin is almost unavoidable, in which case it produces vesication, a result sufficiently disadvantageous to warrant the adoption of a different method, especially if it shall be found to possess all the advantages of the simple mode of application originally proposed by Dr. Simpson, without the inconvenience already mentioned as of frequent occurrence in the use of this otherwise invaluable agent. The following description of the instrument will sufficiently explain the general construction and action of this instrument:—



A. Metal box for the introduction of a sponge, which is retained between two perforated metal plates.

B. The opening in the box through which the chloroform is poured; this is closed by a revolving slide.

C. A valve admitting the air for respiration.

D. The valve for expiration.

E. Chamber for enclosing the mouth and nose.(a)

For the convenience of portability, the chamber for the nose and mouth can be detached at will by unscrewing it at its junction with the apparatus.

65, Lower Brook-street.

(a) Designed by Mr. Hawksley, of Margaret-street.

THE STATUS OF THE MEDICAL PROFESSION CONSIDERED IN CONNECTION WITH ITS EDUCATIONAL SYSTEM.

By P. BRADY, M.R.C.S.L.

It may be regarded, I think, as an axiomatic truth, that the respectability of a profession is closely connected with the intellectual attainments of its members; and, when we consider the present *status* of the medical profession, this truth becomes very clearly manifested. It must be acknowledged that the profession, in this country at least, has never been at a lower ebb in general estimation than that to which it has now receded; and a very little reflection will, I believe, enable us to trace the chief cause of its degradation to the rapid increase of a class of members whose education, moral and intellectual, by no means adapts them for its pursuits. If this be a just premise, it must be granted that the subject becomes one of grave importance to the well-being of the profession; but, exclusive of this somewhat selfish consideration, it is one in which the interest of the whole community is deeply involved. The education of those to whom the public health is intrusted becomes a matter of momentous interest to all, and the first object of those who aim at improving the *status* of the profession should be directed to the awakening of this great truth in the public mind.

The routine of a medical education and the possession of a diploma is too often regarded as a guarantee for the knowledge of its possessor, and, ignorant of the facility with which the diploma may have been procured, or of its intrinsic value, his *fiat* of life and death is received with boundless confidence in his diplomatic authority. But, under the system which has hitherto been adopted by most of the medical colleges and universities of these countries, it must be granted, however painful the reflection, that numbers are annually installed with diplomatic honours whose capacity to undertake the important and highly responsible duties of the profession is indeed extremely limited. I have often been struck with astonishment at the apparent unconsciousness of moral obligation with which some practitioners undertake the treatment of the most serious diseases. A short time ago a medical friend informed me that he was requested by a tradesman's wife to visit her husband, who, as he afterwards ascertained, had been under the care of another practitioner. He found the man labouring under a severe attack of acute pericarditis, but refused to interfere in the case, except in consultation with the gentleman then attending. An interview was the result, and my friend ascertained that the case was treated as one of pleurisy; but the gentleman attending stated that he had a general aversion to bleeding, and could see no indication for it in that instance! My friend informed him that he considered the man in imminent danger, that he should advise bleeding largely, and mercurializing as speedily as possible, to which he reluctantly assented, and the disease, under this treatment, soon showed symptoms of subjugation. Another practitioner, who consulted me on a case in which the first stage of labour was protracted beyond thirty hours, from rigidity of the *os uteri*, in a strong and plethoric patient, was evidently surprised when I recommended the use of the lancet, never having heard of its application to such cases! And the same practitioner, relating a case of concussion of the brain accompanied with bleeding from the ear, with an assumed pride of anatomical accuracy, informed me that the bleeding in such cases always proceeded from the *middle meningeal artery!* He requested that I should examine the case; and, on doing so, I found that the patient, a man of sanguine temperament, had a fall, from which the brain was very slightly concussed; no stupor supervened, and the oozing of blood, which had been very trifling, in all probability had exuded from a ruptured vessel of the mucous membrane. The patient completely recovered in a few days.

These, unfortunately, are not isolated instances. It is a melancholy truth, that they might be repeated *ad infinitum*, affording pictures which exhibit in strong colours the degraded condition to which the profession has been reduced under its present educational system. It cannot be denied, however, that it can boast, even under its present unfavourable auspices, of numerous scions of a better stock—men who cultivate the noble science of their adoption with a diligence not merely inspired by an obedience to the moral obligations it entails, but imbued with a love of science for science' sake, and a genuine desire for its advancement; but, alas! such men are not unfrequently found in its humbler grades, while the paths of popular fame and emolument are lorded over by those who have no other claim to their standing than that derived from the flimsy badge of some venal corporation. These are harsh truths, but truths which, nevertheless, few will have the hardihood to disavow; and it is only by their frequent repetition that the attention of the constituted authorities will be aroused to their consideration.

In general, medical affairs are so little regarded by the lay portion of society, that, on their introduction in the House of Commons, the benches became speedily vacated; but, should our shores be visited by a dangerous epidemic, this criminal indifference to a subject so intimately connected with the best interests of society soon changes to excessive zeal. The machinery of the State is set in motion—a vigorous quarantine is enacted, local boards are formed, cesspools are baled out, sewers are cleansed, the public mind is in a fever of commotion, for a demonstrative danger is presented to it. From the peer to the peasant, all are on the *qui vive;* the press labours with communications on the subject, and it becomes a prominent topic for leaders and pamphlets. Every essay at the introduction of a remedy or preventive is hailed with passionate enthusiasm, and the medical man becomes, for the time, the most important member of the community. But all this hubbub subsides with the pernicious influence of the epidemic—the evil is soon forgotten. Boards of health are dissolved, the press is soon occupied with matters of more immediate interest, and the moment a clean bill of health is presented, with reference to the epidemic, "the doctor" dwindles into his quondam insignificance. In vain is it represented that, owing to the decline of indigenous disorders during the prevalence of the epidemic, the average mortality is, after all, but little increased. Fevers, organic inflammation, disorders of the urinary and digestive systems, consumption, insanity, and the host of diseases which annually decimate the population of these countries, are so frequently exhibited to the public eye that they are regarded with comparative indifference, and are willingly resigned to the management of the innumerable practitioners of the healing art who are scattered about every town and village. Few take the trouble to inquire how and whence the diploma has been procured which confers on its possessor a legal right to treat those formidable diseases which it will often baffle the efforts of the most cultivated intellects and the most superior powers of judg-

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ment even to diagnose correctly. Why should the public, even allowing them the capability, take the trouble to inquire into the actual merits of those who have already undergone the ordeal of an examination before some legally-constituted body, and who, perhaps, appear amongst them decorated with the insignia of some royal college or univerity?

To the mass of the people, the comparative merits of the members of the medical profession is shrouded in impenetrable mystery; and some lucky chance, aided by a well-disciplined tact, will often elevate the most ignorant practitioner to the summit of public favour, whilst he who has, perhaps, for years devoted his best energies to the attainment of professional knowledge is left to sicken over his blighted hopes, unnoticed and unknown!

Is it not an undeniable fact that some diplomas, although ranking high in public estimation, afford no real guarantee that their possessors are capable of administering even a dose of calomel with propriety? Is it not an unquestionable truth that many are annually dubbed with the appellatives of "doctor" and "surgeon" who are as little acquainted with anatomy or the principles of medicine as the veriest quack who gathers his simples under some special lunar influence, in order to ensure their potency? These important truths must be prominently set forth if we would enlist the services either of the Government, the people, or the press in the cause of medical reform, which reform, whatever the character of the superstructure, must have for its basis a well-wrought system of moral and intellectual culture.

But in order to effect this the most strenuous and untiring efforts will be required; the difficulties to be surmounted are manifold; there is no concealing the fact. The chartered councils have a double interest in maintaining a base conservatism, with reference to the educational system. 'Tis true we have numerous hospitals, where every facility is afforded for witnessing disease in all its protean forms, many very well conducted schools, and some able and eloquent teachers; but while the seeds of knowledge, session after session, are thus lavishly strewn, alas! how often do they fall on ground incapable of affording them efficient nurture! The mind, even when industriously exerted, will often vainly endeavour to acquire a knowledge of the art of medicine, connected as it is with so many collateral sciences, whose powers of thought, memory, and judgment have not been perfected by a judicious training in mathematics, physics, and mental philosophy; but the mind, whose *moral* as well as mental culture has been neglected, reckless of consequences and heedless of responsibility, will not be exerted at all; and, with the exception of a superficial smattering, which is worse than valueless, will be as vacant at the end of the chapter as it was at the beginning.

No doubt the plethoric exchequers of certain corporations would be rapidly reduced by the adoption of a severe code; and this may be one reason for the liberality of the examining board. But another reason for their facile admission of members may be found in the dread of the antagonism of men whose professional knowledge would be based on a sound preliminary education. There is little chance of their being overtopped by the ambition of students, who spend their mornings drinking soda-water and their evenings at the *salle de danse*; who, during their occasional visits to hospitals, imbibe more of "half-and-half" than of the art of healing; who glean their smattering of anatomy from the "picture-books" of the day, and their therapeutics from the Pharmacopœia; and who are at length licked into the presence of the examiners by the indefatigable exertions of the grinder. I must not be understood to affirm that all medical students pursue this unworthy course; I sincerely hope that those who do so are the exceptions to the rule; it cannot, however, be denied that the instances are numerous in which advantage is taken of the facilities afforded for entering the profession, after the most superficial and desultory educational course, and too often with a profound ignorance of even the first principles of the art. After this mode are licensed those traders on public credulity whose derogatory conduct has reduced the profession to its present contemptible level. Imbued with a consciousness of their own inferiority, they descend to the meanest tricks to obtain a popularity which they cannot command by any honourable means. Such men lose no opportunity of depreciating a brother practitioner in public estimation. When invited to send in a tender for medical attendance on a society or club, their object is not to consider what may be a fair remuneration for their services, under the circumstances, but what sum may possibly be a shilling or sixpence below the tenders of their opponents in this disgraceful competition. What boots it to complain of the wretched *status* of medical officers in the public service, when numbers of these professional hydras are ever gaping to receive them? What grounds have the union medical officers to expect an ameliorated position, whilst it may be said to them—"Gentlemen, we have no desire to press the situations on you; there are many who will consider the salaries sufficiently remunerative"! I do not mean to discourage the manly efforts of those highly deserving gentlemen who form the majority of the union medical officers, to amend their present anomalous positions; on the contrary, would that any argument I could advance would tend to add increased energy to their efforts. Every member of the community must have an interest in the honest and efficient working of the poor-laws, from the Government which framed them, to the humblest recipient of the public bounty. The laws of England are proverbially founded on the highest principles of justice, and her institutions grounded on the purest philanthropy; but the noblest plans, and best-wrought purposes, are not unfrequently ruined by those who are intrusted to carry out their details; of this fact the working of the present system of poor-laws affords striking evidence. How vain would have been the richly-elaborated fancies of a Milton or a Shakspere, if the pen refused to catch the evanescent thought, and fix it for ever upon the adamantine tablets of Fame! How vain would have been the glorious creative efforts of the architectural genius of former ages, had there been no trusty hands to rear the column, to curve the frieze, and embody the sublime conceptions of the architect in works whose exquisite perfection is calculated to awaken the ambition, while it excites the admiration of succeeding ages! Whilst we contemplate those beauteous structures, we are rapt in astonishment and delight; but in the eyes of all, how trifling should they be compared with the moral structure which is based on principles promulgated by the Almighty Architect of the Universe, and of which the details alone are left in our hands! Such is the fabric of the present poor-law, based on the heaven-created principles of Charity and good will—to feed the hungry, to clothe the naked, to heal the sick, are the objects it has in view; but are these objects efficiently carried out in its working, or are they not rather too frequently rendered a mere mockery and delusion; whilst the framers of the law, satisfied with the formality of its construction, patiently witness its divine principles sacrificed to a debasing economy? It was never intended that the medical officers under the system, while they contributed to the support of the law in an equal ratio with other members of the community, should, in addition, give up the professional services on which they are themselves dependent, without a fair remuneration. There are, doubtless, many individuals amongst the medical attendants on the poor who refuse to regard the amount of their pay in the performance of their onerous but interesting duties; but, unfortunately, we are not all moral philosophers!—and, unfortunately, also, the pecuniary circumstances of the great majority render it physically impossible on their parts to fulfil, with justice to the poor, their highly responsible duties; and thus one of the most important departments of the system is left for its successful issue to the effects of chance!

It can hardly be doubted that a due exposition of this monstrous evil will awaken the authorities to the necessity for its redress, and that this dangerous spirit of parsimony will no longer be permitted to counteract the highest objects of the law. But, whilst we agitate for the redress of particular grievances, we must not lose sight of the great fact, that the *status* of the profession will depend for its advancement mainly on a remodelling of the educational system (a). Let it be once acknowledged that the cause we advocate is not merely that of a class or profession, but one in which every subject of the realm is vitally interested, and the first efficient move will have been made. The tide of public opinion must be turned through the Augean stables of corruption and rottenness—the chartered medical institutions. The system of interest and favouritism which invariably obtains in the election of physicians and surgeons to hospitals, dispensaries, &c., to the exclusion of real merit, must be abolished. We often hear expressions of surprise at the tortoise pace at which the art of medicine advances, but the wonder ceases when we witness the honours and emoluments of the profession conferred on the *protégés* of the powerful and influential, while intellects of the highest order not unfrequently decline the hopeless and ignominious contests. In every such atrocious instance an effective check is given to the springs of science; and yet such flagrant jobs have become so familiar, from their frequent perpetration, that they are regarded with little more than a passing comment or a hasty censure.

Let us, then, unceasingly agitate for the removal of the numerous and gross abuses under which the profession labours. Let us, by the perpetual exposition of our grievances, endeavour to enlist the sympathies of the public, and the services of the public press in advocating their redress; but, above all things, let us never forget that all efforts must be futile and ineffective which are unaccompanied by those two essential requisites—unanimity of opinion and co-operation in action.

FREE HOSPITAL OPERATIONS.

[We extract the following from the *Morning Herald* of Wednesday. Similar things have been prepared for, and published in, the other morning journals. The circumstances will be appreciated without any comment from us.—Ed.]

The Royal Free Hospital.—Painless Operations.—We were yesterday invited to witness some operations at the Royal Free Hospital, Gray's-inn-road, for the purpose of testing the comparative merits of chloroform and ether vapour. Considerable interest was felt by the medical public, from the circumstance of one of the operations to be performed being novel to this country—namely, the removal of a diseased os calcis and astragulus, the bones which form the heel portion of the foot. Mr. Thomas Wakley, jun., was the operator in all the cases, and the anæsthetical agents were administered by Mr. Robinson, of Gower-street, with his newly-invented apparatus. The first case was one of strabismus, or squinting, in which the cure is effected by the division of certain muscles of the eye. The patient readily inhaled the chloroform, and after some spasmodic twitching of the limbs a state of coma was produced, and he remained perfectly passive and quiescent under the hands

(a) While condemning the systems of medical education, and the facile modes of examination generally adopted in these countries, it is but fair to add that there are a few exceptions, amongst which the University of London stands prominently forward. If the system pursued by this university were generally adopted, medicine, as an art, would soon occupy a more distinguished position.

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of the operator. The lower eye-lid was now drawn down, two or three slight cuts were made with the knife, and in half a minute the operation was over, the value of the chloroform in this case being shown by the complete insensibility of the eye, and the facility which it consequently afforded to the surgeon in making the necessary incisions. A little cold water sprinkled over the patient's face revived him immediately, and he walked away apparently doubtful if the operation had been performed. The next case in which the chloroform was also exhibited was the excision of a large fatty tumour from the shoulder-blade. In this case the patient, a female, was very much excited, and, after two or three inhalations, vehemently protested against the operation being proceeded with. This was partly owing to nervous irritability, and partly to having a short time previously taken some brandy, which had been injudiciously given to her to sustain her courage. She then became sick, which appeared to relieve her, and Mr. Robinson having explained the object with which the chloroform was administered, and what its effects would be, she expressed her willingness to try it again, and after inhaling for three or four minutes she became insensible. The tumour was now very dexterously and rapidly removed by Mr. Wakley, not more than half an ounce of blood having been lost, and the patient was then allowed to recover gradually. She was profuse in her expressions of gratitude, complained of lassitude, expressed a wish to lie down, and was removed to one of the hospital beds. On questioning her shortly afterwards, she appeared quite unconscious that the tumour had been removed; she felt no pain, but complained of weakness and depression of spirits. She also stated that she was frightened at the number of gentlemen by whom she was surrounded, and felt no inconvenience from inhaling the chloroform. The third and most interesting case was the removal of a portion of the foot. The patient, a man apparently thirty-five years old, and of a delicate scrofulous habit, had been attacked with caries of the bones forming the heel, and had strenuously resisted amputation of the leg, which had been advised as the only means of saving his life. Mr. Wakley then suggested the removal of the diseased bones, to which the patient assented. He exhibited great nerve and determination, and, after shaking hands with Mr. Wakley, stretched himself upon the couch, and commenced inhaling with great vigour. He was soon in a state of insensibility, and the operation commenced. It would be out of place in a non-medical publication to detail the difficult and complicated process by which the bones of the heel were laid bare, and detached from their articulation with the ancle joint; but when it is considered that the whole weight of the body is sustained by this single joint, which possesses at once great pliancy and enormous strength, the operation will appear sufficiently formidable. Mr. Wakley was ably assisted by Mr. Erasmus Wilson; and after a portion of the tibia (the large bone of the leg) had been removed to make an even surface, the divided vessels were taken up, the flaps turned down, and secured with fifteen sutures, and the whole operation terminated in twenty-five minutes from the time the patient had commenced inhaling. The loss of blood was between four and five ounces; and the patient, on recovering again, shook hands with the surgeon, and appeared in high spirits on finding that all was over. The last case was an operation for fistula, in which the vapour of ether was administered, and the result in this instance was equally satisfactory. Nothing could exceed the coolness, precision, and despatch with which Mr. Wakley performed the several operations we have detailed, and the medical gentlemen present expressed themselves highly gratified and interested by what they had witnessed. The general impression appeared to be in favour of chloroform; but it is evidently an agent of much greater power than ether, and requires considerable care and caution in its administration. Among the gentlemen present we observed Mr. Erasmus Wilson, Mr. Gay, Dr. Marsden, Dr. Bolton, Mr. Childs, Mr. Wakley, M.P., Mr. Churchill, Mr. Douglas Jerrold, Mr. Robinson, Mr. Bullock, Mr. Elliott, &c.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Sir Benjamin Collins Brodie, Bart., F.R.S., Examined.)

(Continued from page 204.)

THE NEW CHARTER OF THE COLLEGE.—I strongly approve of the new charter that was granted to the College of Surgeons in 1843; I think it works well. However, the mode of electing members of the council is awkward.

ELECTION OF MEMBERS OF THE COUNCIL.—I will describe that mode. The fellows may be nominated in succession according to seniority; and if a fellow be nominated and not elected on one election he may be proposed at a subsequent election, but if he be not then elected he is ineligible altogether. If he be not elected on the second nomination he is ineligible for ever. Whatever may have been his discoveries or his reputation he is for ever excluded from the council. I think it would be better if there were no restrictions of that kind upon the election. I do not think that restriction in practice does any great harm, but I think it is not good in principle. It would not be well for the reputation of the college that a man of great distinction and acquirements should not be elected as a member of the council; but I think that the period at which an individual would be proposed according to seniority is so late that his talents must be known. Any person adapted to take a prominent position in his profession will have shown his ability before he is forty years of age. I approve of the principle of seniority in the election of members of the council. I think on the whole it is better that they should be seniors: that it keeps up the character of the college. Though I think it better that individuals should be allowed to employ their own practitioners, I do not think that those who elect the council of the college should have the free choice of electing either young or old; it would be better to elect the seniors. Under the old charter they were not compelled to elect seniors; they might elect anybody. That John Hunter was elected to the council before his death I do not know; Sir Astley Cooper was not till a late period; the rule of seniority was attended to; but I think, in general, persons come into the council soon enough.

DIFFERENCE OF EXAMINATIONS BETWEEN FELLOWS AND MEMBERS.—I said that the requirements from candidates now are of a higher order than formerly; what constitutes the essential difference between the examination of fellows and of members is, the fellows are examined in minute anatomy, and in physiology, and in scientific pathology, besides being examined in practice; the examination for the fellowship is a very extensive one, and all in writing. If we adopted the same examination, or required the same qualification from the members, it could not be complied with by those who are seeking for the diploma of the college at the age of twenty-one, or at the age of twenty-two: it would supersede practical study, which, after all, is of more importance to them than anything else. The fellows are required to have such a knowledge as persons ought to have who are to be teachers. Since the charter has been in operation, in the first two examinations, in December 1844 and April 1845, there were thirty-nine examined; what number have been examined since I do not know, but a great many; but for the young men the time is hardly come yet, because many are waiting till they attain twenty-five. I do not think that practically it injures the reputation of the members that the public should be informed that there is a body of men belonging to the same college who have undergone a higher examination than themselves; and I do not believe the members generally trouble their heads about it. When I was president, and had to admit a young man as a member, I said to him, "In addition to such privileges as you now have as member, you have this privilege: if you will continue to improve yourself while you are in practice, you may come up at the end of so many years without any further professional study in the schools, and may be admitted to the fellowship;" and I am led to believe that that has induced many young men to aspire to the higher distinction. To young men who were studying midwifery there was a bar to their being elected to the council, unless they discontinue it. They must discontinue the practice of midwifery or pharmacy before they can be admitted to the council. I do not know that I approve of that arrangement with regard to midwifery, but with regard to pharmacy I do. I think it important that persons should leave off practising pharmacy before they can be appointed to the council; and I do not think that they would be elected. I think it of advantage to surgery that it should be kept to a certain extent a distinct profession. To a certain extent it may be kept distinct. A man may continue to call himself a surgeon, and yet not dispense medicines, but almost every surgeon who is in extensive practice is occasionally consulted in what may be called medical cases; but I should say not to a great extent. If persons come to me in strictly medical cases I send them away. If a person comes with a complaint in his lungs, I say, "You had better go to Dr. A. or Dr. B., or some other physician." I consider that the range of knowledge is so extensive that no individual can master the whole; and that if you are to do any good you must have a general knowledge of the whole; but cultivate one branch in particular. I do not say that the education should be the same, but that each person should in his education obtain a general knowledge of the whole. I do not think it is necessary for a physician to study all the minute parts of anatomy, and I do not think it is necessary for a surgeon to study physic as minutely as a physician ought to do, but I think that each should have a general knowledge of both branches.

OBJECTIONS AGAINST A SINGLE FACULTY.—The education, as regards all the elementary branches, should be the same in both cases. I stated that I feared that if the profession were to consist of only one faculty, the higher departments of science would be neglected; because, if the whole profession be one faculty, the qualification must be the very minimum; and I think a young man, who begins practising at the age of twenty-one, and who looks to obtaining a livelihood at that age, is not so likely to advance the science of the profession as one who is able to continue his studies three or four years longer, and is not called upon, from any necessity, to obtain his immediate livelihood. But there are exceptions to all rules; I do not speak of those men of superior talents and industry who get over those and greater difficulties. In the College of Surgeons we have a superior and inferior qualification; but all are not content with the inferior qualification. Many come up for the higher one. That would be the case if a single faculty were established, there would be able men who would always desire to obtain higher titles; but at the same time I think it would prevent a good many highly educated men going into the profession. The College of Surgeons might at this moment in England constitute a single faculty, and there is no necessity for an individual passing the College of Physicians or Society of Apothecaries; but, even if that single faculty were established, we should not be without emulation, certainly. I think the examination for the fellows should be such as to prove that, if they are called upon so to do, they are qualified to act as teachers; every hospital surgeon is a teacher; but a man may be an excellent practitioner without having that qualification. There might be many qualified men

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who might be incapable of teaching, from their want of power to explain themselves perfectly; but they may prove their acquirements by coming up for the fellowship, if they please, at any period of their lives.

Examination of Members.—It is our endeavour in our examination of the members to secure to the public a competent body of practitioners as surgeons in all the ordinary duties which belong to the profession. We do not test the capabilities of the candidates in any way with regard to operations, for the reason I mentioned just now, that there is a difficulty in obtaining subjects; but it is very desirable. We do not require candidates to show that they have been subject to examination at the bedside of the sick. It would not be very desirable; I do not think anything would come of it; I have read that part of the bill, and I do not believe that it would be practicable. I cannot conceive any more severe check to the system of cramming that could be imposed; it could not be carried into practice. I cross-examined my own students at the bedside; but in the hospitals they would not allow me, by virtue of my office as an examiner, to come and examine the students at the bedside. If the law enforced it they would not be compelled to submit: a hospital belongs to the governors; the management is vested to the governors; that is, in the subscribers to it. If you took the hospital out of the hands of the governors they would feel no interest in it, and it would not be properly conducted; besides which, I think the best examination is but an imperfect test of knowledge; and the great benefit of a curriculum is, that it requires a certain time to be employed in study. I do not think that a single examination at the bedsides of patients would be much of a test. Though the curriculum requires the devotion of a certain portion of time to study, in many cases that time is not in fact applied to study, but the candidates make themselves competent to undergo the examination by cramming. A check can only be imposed by having a very good examination.

How the Apothecaries' Examination might be Improved.—The examinations which take place at Apothecaries' Hall I would improve by requiring that a certain number of those who have been accustomed to teach in the medical schools should be amongst the examiners. Under that arrangement, examiners are often accused of partiality at the examinations, but I do not believe that there is any partiality; I do not recollect any at our college. I am aware that objections have been raised; there will be on all occasions of that kind objections raised; but at the College of Surgeons great care is taken to prevent partiality. The examiners never examine those persons who have been their own pupils in the various hospitals and schools, at the College of Surgeons. It was never the practice in my time. Even after I had resigned my office of surgeon at St. George's Hospital, I never examined St. George's pupils. I will give the committee an answer at a future day, if they wish it, on the subject of medical education, with a view of rendering it more effectual by legislation.

Defects of the Registration Bill.—With reference to the bill before the House, I have stated that I do not consider the mode of registration there suggested could be carried into effect as to existing practitioners. Some persons ought to be registered who, under that bill, would not be registered, and some would be registered who ought not to be registered.

Scotch Degrees.—The objection would apply to Schedule (C) in the bill if it was said, "A. B. degree granted by St. Andrew's University;" at least it might apply there, or it might not. It would apply if there were a gentleman practising here with a Berlin degree; he might be a very well-qualified practitioner, and he might have an extensive practice in the country, but he would not be included in this register. If he had no other qualification than that Berlin degree, he would not be included; and yet he might be a great deal better qualified than a St. Andrew's graduate. But hitherto that individual has been practising illegally. All the Edinburgh practitioners who have not obtained a licence here in some sense practise illegally. According to the law, no man is a licensed physician in England who has not an Oxford or Cambridge degree, or a licence of the College of Physicians; those physicians to whom I allude have not that qualification, therefore, strictly they are not legally qualified; but your bill would render those persons qualified, because you allow any man who has an Edinburgh degree to practise. The provision of the bill is, that any person who is legally qualified to practise in any part of her Majesty's dominions shall be registered; that was the provision in the bill of which I approved, and it is quite proper that it should be so; but what I meant to say is, that there should be a discretionary power given to those to whom the registration is confided, and that discretionary power would be too much for any individual to have.

Foreign Degrees.—I think if a gentleman has got a degree from Paris, and he is resident in any part of the country as a physician, and conducts himself respectably there as a physician, and is consulted by the people of the neighbourhood, it ought to be out of the question to tell him, "You must go away, you must not practise," when he is allowed now to do so. If an individual is practising surgery, though not a member of the College of Surgeons, I consider it would be very unjust to send him away and not allow him to practise; in fact, he is a legal practitioner already. If he held a diploma in surgery from the University of Paris, and he had been practising in England for a considerable time, and had obtained repute and respectability in the neighbourhood, it would be hard to exclude him from the system of registration. Nay, more, if he had not a diploma of any kind, but had been received by the public as a practitioner in surgery, you should not turn him away, and say, "You shall not practise." Some of our best country surgeons are in that position. If a person had a foreign diploma in surgery, that objection would still more apply. If an individual presented himself at our college, and produced no other testimonial than his character of respectability in the neighbourhood where he practised, and the diploma of a foreign university, I believe we should admit him upon a foreign diploma for examination; but I will not be certain. There is a discretion left to the Court of Examiners. I think there have been instances, but I will not say positively, in which a person holding only such a diploma has been admitted to examination for the diploma of the College of Surgeons. I cannot be positive that such a case has fallen under our consideration.

Non-licensed Apothecaries.—I consider that persons who have been practising only as apothecaries, and who have been knowingly violating the laws for a long series of years, ought to be registered; many of those are very proper persons to practise, as merely from some technicality they have not been able to be examined by the Company of Apothecaries. Persons who have not been medically educated at all ought not to be allowed to practise, and ought not to be included in the register; but if an Edinburgh physician has been practising here as an apothecary, and the Company of Apothecaries have never taken any measure to stop him, and the public have received him as an apothecary, it would be very hard upon the practitioner himself, and his patients, to send him away. I consider that he and all such persons ought to be registered. Persons who have received a good medical education, and who have hitherto been allowed to practise, ought not to be excluded from the register. They ought to be included in any system of registration that was adopted. I would not object to make the registration compulsory; it should be so.

Mode of Registration.—It appears to me that it would be much better to register them according to their classes than according to Schedule (C); those who have degrees as physicians, diplomas as surgeons, and licences from Apothecaries' Hall; and those who belong to two classes might be put in both classes. A man may meet with an accident in some country place, and he may look at this list and send for a gentleman who may merely practise as an apothecary, or he may send for a physician, neither of whom could answer his purpose. The alphabetical list which he would have would enable him to refer to the names of all the qualified practitioners in the town, and he would then have an opportunity of referring to the other part of the schedule, and he would see at once the qualification which all the practitioners possessed; I do not think it would be invidious to arrange the profession in classes; a man need not be ashamed of the class he belongs to; it is a very good and honourable profession in all its parts. The members of the college ought all to be classed as surgeons; I have no objection to every one being put down as a surgeon. With regard to placing physicians before surgeons: the physicians are the older profession, and they are quite welcome to the precedence so far as I am concerned. I do not think it would create any unpleasant feeling if the members of the profession were arranged in classes, and it would be convenient to them all. I think it matters very little whether the register gives the name of the individual, and then states precisely what is his qualification, and where he obtained it, and what is the date of it or not; I do not attach much importance to the form of the register.

GOSSIP OF THE WEEK.

War-office, Dec. 24.—4th Light Dragoons: Assist.-Surg. John Reid, from the Staff, to be Assist.-Surg., vice Mure, promoted in the 72nd Foot. 11th Foot: Surg. John Strange Chapman, from the 63rd Foot, to be Surg., vice Dane, who exchanges. 63rd Foot: Surg. Richard Dane, M.D., from the 11th Foot, to be Surg., vice Chapman, who exchanges. 72nd Foot: Assist.-Surg. John Mure, M.D., from the 4th Light Dragoons, to be Surg., vice Gray, appointed to the 75th Foot. 75th Foot: Surg. Edward William Gray, M.D., from the 72nd Foot, to be Surg., vice Patrick Nicolson, M.D., who retires upon half-pay.—Hospital-Staff: Local Deputy Inspector-General of Hospitals Robert Moore Peile, M.D., to be Deputy Inspector-General of Hospitals; Deputy Inspector-General of Hospitals Robert Moore Peile, M.D., to be Local Inspector-General of Hospitals in Ireland; John Robertson, M.D., to be Assist.-Surg. to the Forces, vice Reid, appointed to the 4th Light Dragoons.

Apothecaries' Hall.—Gentlemen admitted members on Dec. 23:—Frederick George Harcourt, Ipswich; Peter Knight, Augustus Grant, Thayer-street; Osbert Fishlake Cundy, Halkin-street; Benjamin Button, Hopton, Suffolk; and Robert Stead Jones Stevens, Ely, Cambridge.

University College.—Mr. James Syme, Regius Professor of Clinical Surgery in the University of Edinburgh, has been appointed by the council to the chair of clinical surgery, vacant by the decease of the late Mr. Liston.

Appointments.—Philip Henry Williams, Esq., M.D., has been elected one of the physicians to the Worcester Dispensary, in the room of Dr. Hastings, resigned.—Dr. Arthur Farre, and Mr. Toynbee, have been appointed by the Government to inspect the workhouses and infirmaries in the parishes of the metropolis, to determine the amount of accommodation for pauper-patients in the event of the cholera breaking out in London.

In consequence of the extent to which chloroform is now used, the demand for it has become so great that the chemists have scarcely been able to supply it; and in Edinburgh, Liverpool, London, and other towns, many have passed the night in distilling it.

The official accounts from Russia describe the cholera as fast subsiding in all the provinces. At Moscow the cases averaged twenty-five a day, about twelve being fatal.

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Quarantine Alterations.—In consequence of the two cases of cholera which have recently occurred on board the French packets, the board of health here has ordered the following periods of quarantine to be observed:—

	Egypt & Syria.	Tripoli.	Constantinople, Blk. Sea, &c.
Merchant vessels, from	15 days	12 days	12 days
Men-of-war, from ..	12 ..	9 ..	12
Steamers, from ..	12 ..	9 ..	12
Goods that can be purified, from ..	15 ..	12 ..	15
Passengers in the Lazaretto, from ..	12 ..	9 ..	12

From the Dardanelles, Scala Nova, Salonica, Smyrna, Cyprus, Rhodes, Candia, and all islands and ports of the Ottoman Government, seven days' quarantine of observation, provided the voyage has occupied eight days; if otherwise, the number of days required to make up eight allowed for the voyage will be added to the seven required for observation. In a word, it is a quarantine of fifteen days, those occupied on the voyage included. Any vessel whatever coming from the Black Sea, or from Constantinople, or any place where cholera exists, cannot enter our port if, on the passage, any disease has appeared. They are required to lay to, until an official visit from the captain of the port and a medical officer has been paid.

Lunacy.—The second annual report of the Commissioners in Lunacy, signed by Lord Ashley, and presented to Parliament, has been printed. It seems that the commissioners have collected a mass of information on the subject of lunacy, which they have embodied in a further report, and recently presented it to the Lord Chancellor. The report so made, the commissioners state, carries down the state of lunacy and lunatic establishments almost to the present time. It appears there are 2853 lunatics in the metropolitan licensed houses. In six months, ending on the 4th of August last, Dr. Turner, as commissioner, saw 8270 patients; Dr. Hume, 2079; Dr. Prichard, 6723; Mr. Procter, 8267; Mr. Mylne, 3319; and Mr. Campbell, 9939 patients.

Obituary.—Died, on the 25th inst., F. H. Parker, Esq., of Portugal-street, Grosvenor-square, aged 48.

MORTALITY TABLE.

For the Week ending Saturday, Dec. 25, 1847.

Causes of Death.	Total.	Average of 5 Summers.
All Causes.....	1247	1046
Specified Causes...	1247	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	389	211
Sporadic Diseases.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	107	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	125	157
Diseases of the Lungs, and of the other Organs of Respiration	391	333
Diseases of the Heart and Blood-vessels.....	24	34
Diseases of the Stomach, Liver, and other organs of Digestion	62	74
Diseases of the Kidneys, &c.	11	9
Childbirth, Diseases of the Uterus, &c	14	14
Rheumatism, Diseases of the Bones, Joints, &c. ...	5	7
Diseases of the Skin, Cellular Tissue, &c.	5	2
Old Age.....	59	65
Violence, Privation, Cold, and Intemperance.....	55	29

TO THE SUBSCRIBERS OF THE MEDICAL TIMES.

Gentlemen are respectfully informed that the following are the terms of subscription to the *Medical Times*:—

IN ADVANCE FOR THE STAMPED EDITION.

Per quarter ..	£ 0	7	7
Per half year..	0	15	0
Per year ..	1	5	0
Life subscriber	10	10	0

All post-office orders should be drawn in favour of James Angerstein Carfrae, and gentlemen whose subscriptions are expired, will much oblige the publisher by forwarding their renewals without delay. The large reduction, indeed, made in favour of annual and life subscribers is given with the view of *securing*, without trouble, the punctuality, promptitude, and certitude of subscribers' payments.

TO CORRESPONDENTS.

"Medicus, Dublin."—We regret the apathy displayed by the Irish Government, in not stepping forward to the relief of the widows and orphans of those medical practitioners who perished in the discharge of their benevolent duties. We have heard of no efforts made on this side the water to raise a sum in order that the helpless may be assisted. It would be a praiseworthy undertaking, and we have no doubt that there would be found many benevolent persons, not belonging to the profession, who would readily subscribe to a fund for the purpose mentioned.

"A Provincial Surgeon."— Mr. Liston was originally a pupil of Dr. Barclay, of Edinburgh. In 1833 he came to London, having been appointed one of the surgeons of University College Hospital, and Professor of Clinical Surgery in University College. In 1840 he was appointed a member of the council of the College of Surgeons, and one of the board of examiners in 1846. He was not celebrated as a writer.

"Sydenham."—Chloroform continues to be employed in surgical operations; in a few instances some unpleasant symptoms have arisen, not, however, to that extent as when ether was used. In midwifery practice it is beginning to be applied in London, but opinions are divided in reference to its utility. It seems upon the whole to be a valuable agent in obstetric practice, under certain circumstances.

"Chemicus."—Chloroform is but sparingly dissolved by water; with alcohol and ether, however, it readily combines, forming transparent solutions. It is not inflammable.

"A General Practitioner, Piccadilly."—We observed the St. George's Hospital puff in the *Globe*. Such modes of seeking practice are frequently adopted. A spirit of quackery prevails amongst the "pures" quite as much as amongst another class of the profession.

"Mr. E. Cousins."—The case is under consideration, and will probably be inserted next week.

"Adolescens."—Forceps are preferable to the key for the extraction of teeth. Dentists generally use the former.

"S. B., Bristol."—The paper on delirium tremens cannot be inserted without being authenticated. If the author is too bashful to suffer his name to appear in print, it shall be retained in confidence.

"Omicron."—The funds of the Westminster Hospital, we understand, are rather low, so that some wards are shut up. This is not very cheering for those pupils who have entered to the medical and surgical practice.

"A Poor-law Surgeon."—The letter has been received, but, from press of matter, must stand over till next week.

"Auditor."—The "Sketch on the Stethescope" is inadmissible. Because an instrument is not skilfully used, that is no reason why it should be of little value.

"C. G., a Pupil."—The work referred to may be relied on as containing practical information especially useful to the parties referred to.

"Mr. G. H. Fosbroke, Bideford, Stratford-on-Avon," will see that his communication has been received, and we hope again to hear from him on the same subject next week.

"Dr. Tyler, 30, Harcourt-street, Dublin," has our thanks for the communication. The copies shall be forwarded as requested.

"Mr. Thomas Baker, Droxford, near Bishop's Waltham, Hants."—The delay has been unavoidable; but we hope before long to gratify the wish of our correspondent.

"Veritas" writes us, in reference to the Hunterian School of medicine:—"May I beg your attention to the hard case of those students who have entered to the lectures, &c., at the Hunterian School of Medicine. I am sorry to say I am one of those unfortunates who have been misled by the heads of this establishment. Our wish is, that those institutions which ought to protect the interests of all students attending schools recognised by them should come forward and enforce that instruction which has been paid for, or oblige the lecturers to transfer the pupils to some other school, where instruction is regularly and properly given. What think you, Mr. Editor? A few weeks after the commencement of the session the College and Hall withdrew, or threatened to withdraw, their recognition of the lectures—not before. And now "the bailiffs" have seized upon the preparations, &c. The dissecting-room is closed, no lectures are given; and all this without apology or excuse, just as if we were a parcel of paupers waiting the relief of the heartless guardians and the supercilious commissioners. These grievances, involving, as they do, the present and future prospects of a great number of respectable medical students, will, I trust, be sufficient inducement for you, with your generally admitted power, to grant us your aid, and place us, if possible, in our just and legitimate position."

"A Subscriber, London."—German diplomas are now only to be obtained after examination. This has been principally effected through the efforts of the *Medical Times*.

"Mr. Wm. Smith, King-street, Belper."—The paper is in the hands of the publisher, and will shortly appear. The irregular supply we cannot account for, but we think it must be the fault of the bookseller. The papers ordered at the office are invariably posted in time for Friday afternoon's post. The other request shall be attended to.

"Anti-Humbug" writes us, in reference to a certain quack journal:—"The coroner's hopeful son, I perceive, is advertising himself into notice. The father is not satisfied with merely advertising the contents of his paper in one advertisement, but must make a specific one to to bring forth the operative talents of his son. Really the very learned coroner must for evermore say nought against the advertisements on carts, of his professional brethren, in the *Lancet*."

"Mr. Thos. Cocks, jun., Hatfield, Broadoak," sends us the following case, in which chloroform was administered to a very young subject:—"A few days ago, having occasion to operate upon a child one year and eight months old, for harelip, I thought it a most favourable opportunity for the use of chloroform, notwithstanding the age of the patient, especially as she is of a very irritable temper. Accordingly the chloroform was administered, sprinkled upon a napkin after the method recommended by Dr. Simpson, and proved perfectly successful—the child enjoying the fragrance of the fluid, and recovering from the torpor in a few minutes without any unpleasant symptom. This is, I believe, the youngest subject who has, as yet, been placed under the influence of any anæsthetic agent."

"Bristoliensis," "H. C.," and many other correspondents have directed our attention to the puffing of the Wakley journal, and they all express their indignation that such A THING should pretend to put down quacks and quack advertisements.

"A Medical Student."—The bonesetter means quackery. We can give no other interpretation of his jargon.

"P. M."—Mr. Samuel Lane is the principal surgeon of the Lock Hospital. Mr. Phillips is surgeon to the Westminster Hospital.

"M. D." enters into personal details which, while injurious to the young men, have no professional interest to justify their publication. We would sooner see the young persons reformed (and, indeed, informed) than injured. The other points of the communication have been anticipated by other correspondents, as well as by ourselves. "Triumphant," indeed, "will be quackery if such are to be its authorised opponents."

"An Eyewitness."—If the bones were not carious, the operation was, of course, most unjustifiable; but the lust of notoriety listens little to conscience. We have elsewhere published the official "bulletin."

"A Medical Student."—We are obliged by the paper; but all the facts of Liston's career are well known, and would, to our readers at least, be both stale and unprofitable.

The Middlesex Hospital.—We have received some polemical letters from this institution, but they are of no interest to the public. With a general resignation it might have been expected that all the "dirty linen" had been long ago washed.

"W. B. H."—The case is certainly a bad one, but the coroner seems incorrigible, and we are tired of detailing similar accusations. We take it to be that person's mode of repaying his obligations. We see no use in publicity in our correspondent's plight.

"B. B."—We have not been able to make space for the communication.

Will "A Constant Reader, Uxbridge," favour us with his name?

"A 'Regular' Practitioner" "respectfully requests that the *alleged* carious astragalus and *os calcis*, the subjects of a recent mutilation very widely advertised through the *popular* press, be presented to some society or public museum for professional examination." The absurdity of the operation certainly needs that every circumstance should be publicly authenticated which can in any shape tend to mitigate its repulsiveness.

"Mr. S. M. Curl."—The paper on Cholera must for the present stand over.

"An Indignant Pupil" will do well to read the able letter of "Humanitas," in this week's number.

"Free Hospital Quackeries."—We have been so inundated with letters on this exciting subject, that we must next week endeavour to make room for a brief selection from our correspondents.

Letters and communications have also been received from Bristoliensis; H. C.; Mr. Thos. Cocks, jun., Hatfield Broadoak; Anti-Humbug; Mr. Wm. Smith, King-street, Belper; A Subscriber, London; Veritas; Mr. Thomas Baker, Droxford, near Bishop's Waltham; Dr. Tyler, 30, Harcourt-street, Dublin; Mr. G. H. Fosbroke, Bideford, Stratford-on-Avon; C. G., a Pupil; Auditor; A Poor-law Surgeon; Omicron; S. B., Bristol; Adolescens; Mr. E. Cousins; A General Practitioner, Piccadilly; Chemicus; Sydenham; A Provincial Surgeon; Medicus, Dublin; Mr. Evans, Cumberland Infirmary; A Medical Student; F. M.; M. D.; An Eyewitness; The Middlesex Hospital; W. B. H.; B. B.; A Constant Reader, Uxbridge; A Regular Practitioner; Mr. S. M. Curl; An Indignant Pupil; Free Hospital Quackeries, &c.

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ORIGINAL LECTURES.

LECTURES ON GENERAL PATHOLOGY,

DELIVERED TO THE

FACULTY OF MEDICINE

DURING THE PRESENT YEAR,

By PROFESSOR ANDRAL.

Reported for the *Medical Times* by D. M'CARTHY, M.D. Paris, &c.

SECOND PART. CHAPTER II.—(*continued.*)

SEMEIOLOGY OF DISEASES OF THE CIRCULATION.—AUSCULTATION OF THE HEART.

When the heart of a healthy subject is auscultated, two sounds are heard, separated by an interval of silence. The first sound is more dull and more prolonged than the second; its greatest intensity is found to correspond to the space between the fourth and the fifth rib, a little to the left of the nipple, and somewhat lower. At the same time, the apex of the heart strikes the thoracic walls, and the arterial pulse takes place. Perfect synchronism between the pulsation of the arteries and the first sound of the heart exists only in the arteries placed in the immediate vicinity of that viscus. The vessels most distant from the centre of circulation are distended by the blood a little later, but at an appreciable interval. The second sound of the heart, clearer and shorter than the first, is most distinctly heard near the insertion of the third rib to the sternum. The interval which separates the first from the second sound is called the short silence, in opposition with the longer silence, which intervenes between the second sound and the first. The first bruit corresponds with the contraction, the second with the dilatation, of the ventricles. We are aware that Dr. Corrigan and Dr. Beau hold a contrary opinion, but the numerous researches of various experimentalists, and our own observation, induce us to adopt the general belief on this subject. The following is an analysis of the movements of the heart:—The auricles first contract without causing any sound appreciable to the ear; this action corresponds to the long silence; the ventricles then contract and throw the blood into the arteries; at the same moment the tricuspid and mitral valves become tense, and the first sound is heard. A short interval of silence is observed, and finally the ventricles are dilated, and the arterial valves tense, when the second bruit is heard.

Various theories have been broached for the purpose of accounting for the production of these sounds; strictly speaking, for the diagnosis of disease we require no theory, and it is sufficient to bear in mind the succession of phenomena above enumerated; however, these theories are interesting in a physiological point of view. We are of opinion that the sounds are not due to one cause only, but to the combination of several: thus, it is not only to the impulse of the heart, to muscular contraction, to the play of the valves alone, or to friction of the blood against the visceral walls exclusively, that these sounds should be ascribed; but we should consider that all these causes have a share, an unequal one it is true, but still all have a share in their production. Thus we would look upon the tension of the auriculo-ventricular valves as the chief cause of the first sound, assisted secondarily by friction of the blood against the aortic walls, and against the basis of the column of blood forced into the arteries; as still more secondary causes of the first sound, we should also mention the muscular contraction of the ventricles, and the impulse of the apex of the heart against the thoracic parietes. As the principal causes of the second sound, we would name the sudden tension of the arterial valves, and the return of the blood upon their superior surface; as secondary causes of its production, the sudden opening of the auriculo-ventricular valves, and the passage of the blood into the ventricular cavities.

In the history of the auscultation of the sounds of the heart, we have to consider their seat, extent, intensity, tone (*timbre*), and also the substitution of morbid to natural sounds.

With regard to their seat, we may say that the various causes which occasion a displacement of the heart itself, also change the seat of the sounds; tumours will, therefore, frequently have this effect—a fact so simple as to require no further demonstration.

The extent in which the sounds of the heart are heard during health may be increased, as in endocarditis, dilatation of the viscus, fever, emotions, and, generally, nervous affections, by which the violence of its contractions is augmented. If the heart is supposed to remain healthy, still the extent in which the sounds are heard may be increased by all the causes of condensation of the lung, acute and chronic pneumonia, consumption, &c., which render the respiratory organs better conductors of sound. On the contrary, that extent will be diminished by atrophy of the heart, concentric hypertrophy of its walls, pulmonary emphysema, &c.

The intensity of the sounds is augmented in eccentric hypertrophy, in neurosis of the heart, rarely in endocarditis; in feverishness the intensity of the sounds and the impulse are not augmented as much as one would, *à priori*, suppose. The sounds of the heart can sometimes be heard without immediate application of the ear to the chest, and at very variable distances, from two or three inches, for instance, to two or three feet, as we have ourselves observed. The sound thus heard coincides with ventricular systole; and we believe the cause of the phenomenon to reside in a great increase of energy of the impulse of the heart against the thoracic walls. Laennec explained it by the presence of gas in the pericardium—a gratuitous hypothesis which we do not feel disposed to adopt. In general debility, in softening or atrophy of the heart, in syncope, we find a diminution of its pulsations. We may also add, that in pericarditis, increased dulness coincides with diminished intensity of pulsation, when effusion has taken place; whereas both the dulness on percussion and the intensity of pulsation are increased in hypertrophy of the organ.

The rhythm or regular succession of the sounds of the heart may be modified by disease. Thus, the sounds may be intermittent, and the return of the irregularity very variable, and depend upon agitation, motion, or even digestion. Before the age of sixty we very seldom meet with those intermittencies in the pulsations of the heart without some organic disorder of that viscus. We meet them, for instance, in valvular diseases, and particularly in those of the auriculo-ventricular orifices, whether permanent or transitory in their nature; they also exist when fibrinous concretions form within the heart, in functional disturbance, and whenever any tendency to augmentation or diminution of the action of the heart is produced. We will not, therefore, be surprised to find them before syncope, or after the exhibition of digitalis. Recollect, however, as a general remark for the accuracy of which we pledge ourselves, that simple nervous affections very seldom cause intermittent pulsations. The duration of the sounds or of the intervening silences may be increased or shortened. The prolongation of the first bruit is generally connected with hypertrophy of the ventricular walls, particularly when this alteration coincides with arterial stricture. As to the second bruit, it is more common to find it shortened than lengthened by disease.

The sounds of the heart may be modified in number: thus, of the two, one only may remain. It is then the first which, being prolonged, covers and absorbs the second, as in concentric ventricular hypertrophy. The second sound may also, but more rarely, be so much weakened as not to be perceptible. Instead of two sounds three may be heard—one dull and two clear sounds—resembling those produced by a hammer falling heavily once, and reverberating twice again afterwards (Bouilland). It is in such cases the second sound which is repeated, and it is observed in strictures of the auriculo-ventricular orifices. The passage of the blood into the ventricles being slackened, a delay takes place in the fall of the blood backwards upon the arterial valves, and the treble sound alluded to is produced. The repetition of the first—the dull sound of the heart—is less frequent, but is occasionally met with, and forms what Professor Bouilland calls "bruit du rappel," from its resemblance to the drummer's call to arms. (a) Its organic cause has not hitherto been rigorously accounted for. In one case of considerable auricular hypertrophy, M. Charcolay states that he heard immediately before the first bruit a

(a) Our readers may not be so familiar with this sound as Parisians, whom the frequent riots of the French metropolis have accustomed to the beat of the drum. The soldiers, in imitative harmony, compare the "bruit du rappel" to the sounds produced by the three words, "prends ton sac."

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peculiar sharp sound. Instead of two or three bruits four may be heard; but *post-mortem* examination has not yet thrown much light upon the mode of production of this rhythmic modification. Finally, we sometimes find, particularly when patients are first submitted to examination, that the sounds of the heart are so tumultuous and irregular that they cannot possibly be analyzed. Repose often dispels this first result of emotion, and permits the physician to form a correct diagnosis in cases which at first seemed to defy discrimination.

The tone of the sounds of the heart may also be altered by disease. In general hypertrophy of that organ both sounds are more dull; in ventricular hypertrophy the first sound only, in auricular hypertrophy the second is thus modified. When the sounds, on the contrary, are more clear, it is generally the result of a condition opposite to hypertrophy, viz., dilatation. When the valves, particularly the bicuspid, are thickened and rigid from chronic endocarditis, a hard, dry, sharp sound is heard, which M. Bouilland calls "parchment sound" (*bruit parcheminé*). In acute endocarditis, the valves being rather soft and fungous, than hard and rigid, a softer, muffled sound is produced, which the same pathologist names "hoarse sound" (*bruit enroué*). Here we also place the study of the metallic sound of the heart. It can be readily imitated by applying the palm of one hand to the ear, and striking the back of that hand with the extremity of the index of the other. This experiment proves evidently that this sound may be the result of concussion, and it is heard in the heart whenever that organ beats with unusual violence. Fear and mental emotion produce palpitation, and may therefore occasion the metallic sound. Also in intense fever, when the subject is vigorous, it may be observed. It may also accidentally accompany organic disease of the heart. Laennec believed it to depend upon the presence of air in the pericardium—a supposition which has never been supported by facts. Dr. Dechambre observed it in one case in which the stomach was distended by an accumulation of fluids and of gas. We consider this to have been, in M. Dechambre's case, a mere coincidence. That most distinguished observer, Dr. Hope, also noticed it under peculiar circumstances. It seemed, in a case which he met with, to be produced by percussion of the apex of the heart against the margin of a rib which projected internally, and ceased when Dr. Hope, by pressing upon the intercostal space, and re-established a level surface, upon which the heart did not meet with any inequalities. This most interesting phenomenon Dr. Hope established as the basis of a general theory of the metallic sound—a theory which we do not adopt. We believe certainly, with Dr. Hope, that in the case observed the cause of the bruit was the catching of the heart against the rib, but cannot admit that it is so in all cases. We believe, with Bouilland, Barth and Roger, Beau, &c., that the metallic sound is produced by the violence of the percussion of the heart against the thoracic walls.

In our next lecture we will study the abnormal sounds produced in the heart by disease.

CLINICAL OBSERVATIONS ON SOME OF THE MORE FREQUENT DISEASES OF CHILDREN.

By W. HUGHES WILLSHIRE, M.D. (Edin.), M.B.S., Physician to the Royal Infirmary for Children, &c.

(Continued from page 212.)

In many instances, especially where the diarrhœa has been persistent, and much debility has been induced, and there are not teeth enough to be able to chew meat with advantage, strong beef gravy—not beef-tea, or, as it might be called, beef-water—should be poured into a glass, and allowed to stand a short time until the fatty matters collect at the top; these being removed, the child may have given it what remains at the bottom. This I constantly find of advantage. You will observe that, while in some children certain articles of food produce diarrhœa and its consequences, in others these very articles may be employed to stop them. For instance, a child has been suckled but for a month; it is then brought up by hand, fed upon arrowroot and baked flour, mixed with but a small proportion of milk; the natural result will happen, that diarrhœa is set up, and marasmus supervenes. In this child the forbiddance of all vegetable material, and the feeding it alone on milk, or with the isinglass pap I spoke of, will soon stop the diarrhœa. Another child has been nursed upon breast milk alone; from some cause or other, difficult perhaps clearly to divine, it also has diarrhœa; diminishing the breast milk, and the substituting for it baked flour and boiled cow milk, stops the diarrhœa, or what is called "thick milk" will do the same. Underwood has some good observations upon this subject, to which I shall refer you. I shall give you here, however, his receipt for the baked flour. "To this end," says he, "the flour should be put into a small jar properly covered, and taken out of the oven several times and stirred up from the bottom and sides of the jar, that it may not run into hard lumps, but the whole be equally baked till it breaks into a soft, greyish-coloured powder; it should be afterwards mixed with boiled cow's milk, the scum being first taken off; the flour and milk should then be boiled a little time together, till the whole appears like a thin custard." Now and then, such is the state of debility induced in diarrhœa, you will find great benefit from the use of a small quantity of porter. I have over and over again, in the more chronic forms, advised half or a whole wineglassful, even in the case of very young children, to be given in the middle of the day. You know that stimulants of all kinds must be given to children very cautiously, and in relation to this circumstance we should be careful in not teaching them a new want, by introducing to them the knowledge of any alcoholic fluids. But, when necessary, of course they must be employed. Although I generally prefer good porter to anything else, some prefer wine. Underwood remarks that, "To patent sago properly boiled, adding to every half pint a large teaspoonful of red port wine, for the use of infants a week old, cautiously increasing the quantity of wine as they grow older. A large family of children, whose bowels had been continually disordered by various other food, has been brought up upon this; it may seem strange to advise it for infants in the month, but it will be recollected by some readers that the practice is very different in wine countries." I may remark that, in a late work by Henoch and Romberg, these writers state that they have given tokay wine with the best results in atrophia lactantium, and in marasmus from chronic diarrhœa.

Whatever diet is found to be most available, one thing is requisite, viz., that care be taken it is always administered fresh and void of acidity. This is more particularly necessary with respect to children being dry-nursed or infants fed upon spoon food, or who use the sucking-bottle. The generation of acidity in the aliment before it is given is very often the cause of a most obstinate diarrhœa. With respect to elder children, also, it should be remembered that the diet should always be as simple and as plain as possible: no high-tasted food, strong condiments, or rich sauces are to be employed.

Gentlemen,—I have to continue the subject of the treatment of diarrhœa, a subject which, when I last addressed you, I had considered, so far as relates to the more general hygienic and dietetic management of the disorder. I have now to speak to you of those methods of procedure more particularly advisable in special forms of this very frequent malady, and to indicate to you those more truly therapeutic measures which I think you should adopt in treating them.

In the slighter forms of *sympathetic diarrhœa* produced by the reception of improper food into the stomach, or by the surface of the body having become wet or chilled, if attention be paid to the nature of the food afterwards given, and to properly protecting the body from further climatorial changes and vicissitudes, nothing more need be done. But, should fears be entertained that the disorder may run into a catarrhal variety, then you must proceed further. Should the offending matters be supposed to have been all discharged as the diarrhœa has gone on, there is, of course, no necessity to give any purgative by which such evacuation of them might otherwise have been effected; and the best thing you can do is to produce a revulsion in the digestive apparatus by giving an emetic of the powder of ipecacuanha. Should, however, the belly be full, knotty, or hard, and suspicions be had that bad matters are still retained, give a full dose of castor oil. If the chilling, &c., of the surface has been the main cause of the disorder, give the emetic and a warm bath, the water having a little salt in it. These in general will suffice.

Suppose, however, a sympathetic form runs on to the catarrhal—say of the serous type—or that you have the latter at the onset to deal with, then, besides earnestly attending to all the dietetic and hygienic measures I have laid down, you must have more repeated recourse to therapeutic agents. The potency of, and frequency of recourse to, the latter must vary according to the urgency of the catarrhal irritation, as determined by the character of the stools, the existing degree of fever, the strength of the patient, and any epiphenomena. One thing you must do, however: stop the discharge as soon as possible.

In slight cases, if the stools are pale, clayey, frothy, or yeasty, the skin or conjunctiva of a dirty hue, or the tongue foulish, give a grain of the hyd. c. cret., with four grains of the pulv. cret. c., night and morning. If acidity of the breath, of the secretions of the mouth, and of the stools characterize the disorder, give instead two grains of rhubarb, one of ipecacuanha, with four of five of soda. This combination you will find often of great avail. You may also, at the onset of these cases, if there has not been already vomiting, cause such revulsion by the emetic I before alluded to. The diarrhœa may become more urgent, however. With the above you should give frequently a teaspoonful of the chalk mixture, which, when the surface is pale or cold, should contain aromatic confection, and in more obstinate cases the tincture of catechu. Of course the dose of the medicines must progressively increase according to the age of the patient; those which I have given you are for very young children.

You will sometimes have a child brought to you suffering catarrhal diarrhœa, which, under the treatment already adopted, does not give way, and which seems to be kept up by a habit, as it were, of the intestinal follicles continuing their increased exhalation. The child's appetite is good; there is no fever, and the tongue is clean; but still, if the discharge were to continue much longer, a very different train of phenomena would set in, and great constitutional disturbance follow. In such a case you will find the value of that "queen of all the medicines," as Harttman calls it—opium; give, therefore, at night half or a whole grain of the pulv. ipecac. comp., with two of rhubarb, and three or four of calcined magnesia: it may be necessary to give the opiate oftener, even though you also give the chalk mixture containing an astringent tincture. In some instances a starch injection, containing from two to five drops of the tincture of opium, may be given night and morning with great benefit. Of course you must be very careful of your dose of opium, but you need not be, as some are—like Dr. Beck, of America, for instance—so frightened as to make of it no use whatever. Opium is a most useful remedy in combating the diarrhœa of infants and children, and, with proper caution, may be employed as safely as any other drug of power. When given, however, its effects must be watched, and not too great a quantity allowed to be in the hands of the mother. The smallest dose on record which has been fatal is half a minim of the tincture; but this was not in a case of diarrhœa, but in some

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affection of the lungs. The child, if I recollect right, was but a very few months old.

In the mucous varieties of catarrhal diarrhœa you will have to vary the treatment somewhat, inasmuch as we often have retained matters which must be first discharged ere we can hope to arrest the diarrhœa. When the latter is produced by worms, there is nothing so useful as the administration of equal parts of the oils of castor and turpentine; and this combination you may give to a child two years old, or, if you give it by the rectum, much earlier. A drachm of each will be the dose, which, of course, must be augmented as the patient is older. Whenever you give turpentine, always tell the mother what disagreeable feelings she possibly may find the child experience, as if you do not she will perhaps become much alarmed. This drug, now and then, acts strongly on the sensorium, making the child somewhat tipsy, or even quite prostrates it for an hour or two. You should always mention it to the mother that it may possibly be so affected, and that, should it be so, she must lay it down, and that these feelings will soon disappear, and that they are of no harm. In other cases it acts untowardly upon the urinary organs, causing dysuria, strangury, and other distressing symptoms; and, should this occur in private practice, it will not be very pleasant for the medical attendant, as he will be supposed to have done a great deal more harm than good. You will think these are great drawbacks to the use of this medicine. The latter result I have just mentioned is undoubtedly so; but it occurs so rarely that I do not let it influence me, for I find there is nothing half so efficient in killing and dislodging ascarides and their bed of mucus. Still, as with opium, I have thought it proper to caution you, so that you may use your discretion and be upon your guard. I feel bound to tell you even what only *may* happen. A short time back I had rather a severe example of the latter action of turpentine, and I had the utmost difficulty in assuring the mother that the child would undoubtedly soon get round again, and that, though the symptoms seemed serious and certainly were painful, yet that there was no real danger. In such a case you must foment or poultice the abdomen, or put a mustard poultice there or over the region of the kidneys, or in bad cases some leeches over the region of the bladder; give internally tincture of hyoscyamus, and liquor potassæ in a mucilaginous vehicle, and make the little patient drink plenty of barley-water. The bowels should be gently relieved by castor-oil. If you are afraid of turpentine in these cases, you may give instead, at bedtime, a purgative powder, composed of an equal number of grains of scammony, aloes, and sulphate of potash, or of calomel with jalap to older children, working it off the next morning by castor-oil. But to very delicate and for young children most of these agents are too drastic, and a grain of calomel with a grain or two of rhubarb, worked off by a teaspoonful or two of olive or castor oil, will be advisable. After the operation of a single dose of these drugs, an injection of lime-water may be given. Some recommend an infusion of wormwood and chamomile flowers.

In the mucous types of diarrhœa the belly is sometimes tense, hard, or knotty, and if such states exist together, with straining at stool, and the evacuation but of very slight motions, you must give gentle purgatives before having recourse to astringent or absorbent remedies. Castor-oil will be found as effectual as anything, and after this has effected its purpose, and the diarrhœa continue, as it often will, with muco-serous stools, you must have recourse to the remedies I before spoke of when treating of serous diarrhœa.

I have already told you how prone the digestive apparatus of children is to create acidity, and you will often find that by the administration of antacids alone you will put a stop to the diarrhœa. Some persons lay much stress upon the use of certain alkalis instead of others—upon certain out-of-the-way antacids instead of more common ones. Some assert there is nothing like the carbonate of lime; others, that the right drug is the trisnitrate of bismuth. "Clinical observation," says M. Mialhe in the 'Union Médicale,' "has long shown that the various alkalis may replace each other in practice. This is the case with carbonate of lime and of magnesia, as also with the compounds of soda and potass. It has been erroneously stated that soda is more favourable to the animal constitution than potassa. Analysis of the animal fluids shows that the potassa compounds are equally prevalent with the soda, and, as regards the herbivora, far more so. But although we can in general, by the aid of any alkaline preparation, induce an identical medical result, we believe it is better to give the preference (as mere antacids) to those alkaline compounds which present the advantage of having always a uniform chemica composition, and of producing little or no therapeutical effect; and in these respects the hydrated calcined magnesia and the bicarbonate of soda seem to hold the first rank."—(See No. 94 "Medico-Chirurg. Rev.")

In the veno-autumnal diarrhœa, as a general rule, astringents and antacids, or absorbents, may be at once had recourse to, unless satisfactory evidence exist that much of the harder fruits, or softer ones in a state of acetous fermentation, have been largely taken shortly before. All remains of these must pass away before we can hope to check the diarrhœa. But in most cases this form of diarrhœa has no relation with the eating of fruit, as is frequently supposed. I may here remark, that nuts are a fruit that I believe are a constant source of the generation of worms, both in elder children and adults.

As yet I have said nothing special about interfering in the diarrhœa accompanying dentition. You must know that, both in this country and on the Continent, two very opposite views are held as to the treatment to be followed, at any rate in the less severe forms of the intestinal irritation: one party believing that the diarrhœa should not be put a stop to, as it serves as a safety-valve, a derivation preventing more serious symptoms during the continuance of the gingival irritation; the other party consider that it is only productive of debility, is a phenomenon of disease, and should be at once stopped. Now, I think you will find a middle course is the best to pursue. If but a slight sympathetic derangement is produced, the infant be not debilitated or thin, and seems likely, as many children do, to bear it well, or the stools not very watery or serous, the better way is not to interfere, either as regards the intestines or the gums. But it will be quite a different matter when the diarrhœa becomes catarrhal, the stools very frequent and watery or greenish, and the gingival irritation great. The intestinal excitement must be stopped, and the gums at once looked to, for the very worst form of diarrhœa may arise—that of entero-colitis. In arresting the disorder you must, of course, first of all attend to the condition of the gums, for two reasons—first, because here is seated the main cause; secondly, because, if you stop the diarrhœa by giving astringents, and leave its cause still in operation, you will perhaps have vain or excito-motory symptoms happen to the child. If the gums appear tense, swollen, tender, very red, or hot, lance them immediately; then let the child be put to the breast, or encouraged to sip some warm demulcent liquid, to encourage slight bleeding; afterwards have it put into a warm bath, and then sent to sleep. Afterwards, keeping your eye upon the gums, have recourse to some of the remedial agents I told you were proper for catarrhal diarrhœa. You must not, like the French, think lancing the gums of no great moment; you must not, like some of us, go on lancing for everything, and two or three times a day. In many of these cases, in addition to the remedies already spoken of, you will find, when the mouth is hot, or the tongue coated, or child feverish, that two or three grains of the nitrate of potassa dissolved in caraway or cinnamon water, or in thin mucilage, and placed in the mouth every two or three hours, of benefit.

The vomiting so often obstinate in diarrhœa you will find best met by giving the sesquicarbonate of soda and very small doses of hydrocyanic acid in the infusion of calumba or caraway-water, a mustard poultice being placed on the epigastrium. The fluids taken in such cases should be cold, not warm. When there exists stomatitis, or apthoid exudations, you must give the chlorate of potassa in an aromatic water, or, what is best, if the child will take it, in infusion of gentian; give rhubarb and soda at bedtime, and order the biborate of soda in mucilage to be applied frequently to the cavity of the mouth and to the lips. You must not order sweet vehicles in these cases, and must forbid saccharine articles of food.

I have before alluded to the treatment of prolapsus ani, and of erythema of the thighs and nates.

Lastly, in addition to the means I have hinted at, you will find that a turpentine embrocation, or other stimulating liniment, frequently rubbed over the belly, a mustard cataplasm, or warm fomentations, applied there, are often of great avail. Occasionally a warm bath, or putting the legs and thighs in warm salt water, are also of benefit. But to these and other matters I shall allude in speaking, in my next lecture, of the treatment of entero-colitis, and when I shall conclude the subject of diarrhœa.

ON THE PHYSICAL PHENOMENA OF LIVING BODIES.

By Professor MATTEUCCI, of Pisa.

(Continued from page 173.)

PART XVIII.

VISION.

The function assigned respectively to the several organs of the senses is invariably composed of two very distinct parts, viz.:—

1. The external objects produce upon the sensorial nerves a certain *impression* of a distinct and specific character for every one of the five senses respectively.

2. This *impression* is transmitted to the brain, where it is transformed into *perception* of the external object that has produced it.

It is with the sense of sight, the same as with that of hearing, as regards our relations with external objects. When the sun appears above the horizon, and, accordingly, becomes *visible* to us, there must necessarily be some sensible relation established between that luminary and our eyes; the sun must make an *impression* upon them through a certain physical agent, which we call *light*.

We shall have to examine, in this chapter, the course taken by the luminous rays which, emanating or starting from external objects, reach the retina, and excite its peculiar action. Compress or strike your eye in the dark, and you will experience a vivid, but indistinct, luminous sensation. If the compressing body be small, and cover only an inconsiderable part of the eye, the luminous sensation will be equally circumscribed, and you will, in that case, be conscious of the limits, or, in other terms, of the degree of pressure exercised upon the compressed point. If the surface of the retina were exposed bare to the luminous objects, *i.e.*, without the interposition of any other apparatus, it is obvious that every individual point of it would be excited at once by all the rays that might emanate in every direction from the luminous object, and, accordingly, if a thousand of these rays presented themselves simultaneously to the eye, with their divers colours, the whole of them would simultaneously create upon the retina the impression of their light, and this organ would accordingly never be able to catch a precise and accurately-defined impression of any one of the individual rays.

To endow the organ of sight with the power of distinct vision, it was indispensable, therefore, to place before the retina an apparatus adapted to direct the rays emanating respectively from the different parts of an object, to separate and distinct points of the retina, disposed in a definite order.

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The camera-obscura is the most simple apparatus of this description. Let us suppose a membrane with a small aperture in the centre stretched before the retina: the rays emanating from one extremity of the object will, after traversing this aperture, excite a distinct and definite point of the retina; the same will be the case with the other parts of the object, and, accordingly, every individual part will excite a corresponding, distinct, and separate point of the retina, and this exactly in the same order in which the parts from which the exciting rays emanate, are disposed in the luminous object. The smaller the aperture the more distinct, but, necessarily, also, the less bright and intense, will be the image formed. It is probably for this reason (want of *luminousness*) that nature presents no instance of an organic visual apparatus analogous to the camera-obscura.

Müller, to whose admirable investigations on the structure of the eyes of insects we are chiefly indebted for our knowledge of these organs, gives the following description of the exceedingly curious arrangement presented by the visual organs of most insects:—An immense number of minute cones are implanted perpendicularly on the retina; these cones are filled with a transparent matter, and their lateral walls invested with a black and opaque pigment, which serves to absorb all those of the luminous rays that do do not traverse the cone parallelly to its axis. A convex transparent membrane forms the external face (which is also the basis) of the cone. At the summit of the cone is fixed the extremity of the nervous filament, which, according to Wagner, rises in the interior of the cone and expands over its walls. We can readily conceive how distinct vision is obtained by this arrangement: of all the luminous rays which emanate from an object in all directions, and strike every point of the surface of the eye, only those can reach the retina—and this in a separate and distinct spot—which, emanating from any given point of the luminous object, happen to traverse one of the cones parallelly to its axis. The distinctness of the image will accordingly depend upon the number of cones implanted on the retina, whilst the brightness and intensity will be in inverse ratio to the number of these cones. It is also easy to conceive how, with this apparatus, the field of vision may be extended, by increasing the convexity of the spherical segment representing the eye.

Now, to produce a visual apparatus still more perfect than that which we have just now described, it was necessary to construct it in a manner to obtain perfect distinctness of the image without impairing its brightness; in one word, an apparatus adapted to make the rays, which fall with considerable obliquity upon the surface of the eye, converge upon the retina; and such is the eye of man and of the higher animals.

We will give here a brief description of this organ.

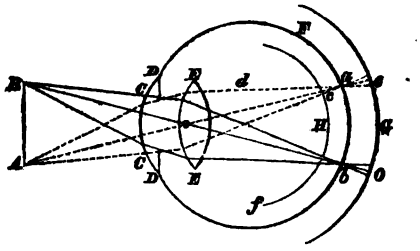
The eye is enclosed in a cavity called the *orbit*. The shape of the eye, which is nearly spherical, is maintained by an envelope, consisting of a fibrous and solid membrane, opaque at its posterior part (*tunica sclerotica*, or *opaque cornea*) and transparent at its anterior portion, where its curve augments, and it receives the name of *transparent cornea*. A membrane called the *iris* is attached at the circle where the transparent cornea joins the sclerotica; the different colour of eyes depends upon this membrane. The iris is composed of muscular fibres, of which one portion is disposed circularly, the other vertically. It presents in its centre a circular aperture, termed the *pupil*, and of which the diameter varies according to the greater or less intensity of the light. Behind the iris is placed the *crystalline lens*, a solid, lenticular, transparent body, enclosed in its proper membrane. On the internal wall of the sclerotic coat we find a black-coloured membrane, termed the *choroid*, which is again lined by the *retina*, a semi-transparent, thin membrane, formed by the expansion of the medullary part of the optic nerve. The eye is divided by the lens crystallina into two distinct cavities. The anterior cavity, in which the iris floats, is filled with a liquid greatly resembling water, and containing traces of salt; this liquid is called the *aqueous humour;* the posterior cavity contains a liquid of much greater density, and which is termed the *vitreous humour*. If we examine the crystalline lens attentively, we find that it is formed of several successive layers, the consistence and refracting power of which go on increasing from the circumference to the centre. Finally, we call *optical axis* of the eye the line corresponding to that in which the axis of the eye itself may happen to be directed respectively in every individual act of distinct vision. We will give here the mean dimensions of the several parts of the eye of man:—

	Millimètres.
Radius of the curve of the sclerotica ..	10 to 11
Ditto . . . . transparent cornea	7 „ 8
Diameter of the iris	11 „ 12
Ditto . . . pupil	3 „ 7
Thickness of the transparent cornea ..	1
Distance of the pupil from the cornea..	2
Anterior radius of the crystalline lens..	7 „ 8
Posterior ditto	6 „ 6
Diameter of the crystalline lens ..	10
Thickness of ditto	5
Length of the optic axis	22 „ 24

In addition to these numbers, we will give here some figures indicating the refractive power of the media of the eye. The refractive power of the aqueous humour differs but little from that of water, being = 1·336 for the latter, and = 1·337 for the former. The number for the vitreous humor is 1·359; for the peripheric portion of the crystalline lens, 1·377; for the median portion of the same, 1·379; and for the central portion, 1·399.

The eyes of animals present some differences from that of man. The transparent cornea is highly convex in birds, and the crystalline lens is of nearly spherical form in some of the latter class of animals. In fishes, on the contrary, the cornea is almost level. The choroid also presents very different colours in the several classes of animals.

Having thus briefly described the eye and its constituent parts, we will now proceed to examine the course taken by the luminous rays through the several media of the eye; we shall here regard this organ as a compound system of convergent spherical lenses.



The rays of the luminous cones which emanate from the points A and B of the object traverse the transparent cornea CC, and penetrate into the aqueous humour, which occupies the interval between the cornea and the surface of the crystalline lens; they suffer thus a first refraction, and approach the rays that penetrate parallelly to the axis of the eye. It would be easy to calculate the convergence of these rays if we knew the exact degree of convexity of the cornea and the refractive power of the aqueous humour. These rays, upon reaching the crystalline lens (which is a true biconvex lens), are still further deflected towards the axis of the eye, and upon their exit from the lens they experience a third refraction in the same sense, at the moment of their entrance into the vitreous humour. The direction followed by the rays emanating from A and B is traced in the engraving: their focus is in *a* and *b;* and, assuming F to be the retina, *a* and *b* will be the points corresponding to A and B of the object. Assuming the retina placed at H, the image of A and B will be diffused over a semicircular line at *e* and *f*; (a) or, assuming the retina placed at G, the image will be diffused in the same way at the points *o* and *e*. Vision, accordingly, is distinct when the retina is placed exactly at such a distance from the crystalline lens that the focus of the rays falls exactly upon it. But to attain this result it was necessary to intercept all the rays that fall near the edges of the crystalline lens, and the focus of which would certainly be formed at a different point from that of the focus of the rays which traverse the central part of the lens; the interception of these laterally-incident rays is the most important office of the iris and pupil, which perform here the part of a diaphragmatic membrane provided with a central opening of very variable diameter. It is with a view to the same object that the crystalline lens requires the more convex form, and the denser structure, the denser the medium in which the act of vision is to be effected.

Lastly, the internal parts of the eye, and more particularly the posterior face of the retina, are invested with a black pigment which absorbs all the rays which, were it not for this arrangement, would be reflected again inwards, and would thus impair the distinctness of the image. We imitate this arrangement in our optical instruments: the tubes of telescopes and microscopes are blackened inside.

A simple experiment will suffice to show that the formation of images is effected at the bottom of the eye—upon the retina. Hold the eye of an albino rabbit at a proper distance before the flame of a taper (in a darkened chamber), and, as the sclerotic in the eye of this animal happens to be semi-transparent, you will distinctly see on that membrane a reversed image of the flame. We find by calculation, with the aid of the formula of convergent lenses, and taking into account the respective dimensions and refractive powers of the several component parts of the eye, that when an object is placed at a distance of about thirty centimètres (about twelve inches English) from the eye, the rays proceeding from that object will fall upon the eye with the degree of divergence requisite to effect their convergence upon the retina.

The preceding data and observations lead us actually to the conclusion that vision, or, in other words, the sensation of a body sending luminous rays to our eyes, is owing to the modification produced on the retina by the luminous rays concentrated on all the points of that membrane where the image of the body from which these rays proceed is formed, and to the transmission of that modification to the mind through the agency of the optical nerve. In what way or manner soever the retina be excited, the effect will always be a sensation of light: the transmission of the electric spark, a blow upon the eye, or any compression of whatsoever nature exercised upon that organ, and consequently upon the retina, determine luminous sensations on the latter. We repeat it here, again, it is the characteristic property of the nerves of the several senses, that any excitation whatsoever to which they may be subjected produces invariably but the one specific and definite sensation peculiar to the excited sense. The retina, upon which the images of the luminous objects are formed, is affected more or less powerfully in different parts according to the different intensity of the light acting respectively upon these parts. If the images did not form upon the retina—if the visual apparatus consisted of this membrane alone, unaided by the lenticular apparatus—we should not possess the faculty of distinct vision, but simply that of distinguishing between day and night, light and darkness. But through the lenticular apparatus the action of the light is restricted to a certain part of the retina, which part represents in its form exactly the shape of the luminous body. It is, accordingly, an essential condition of vision that the images should

(a) There is a slight error in the engraving: the letter *f* should be placed at the point where the rays intersect H.

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form upon the retina, and that the focus of the luminous rays should fall upon that membrane. It has also been demonstrated by a curious experiment of Mariotte's that vision is much less distinct when the image is formed upon different points of the retina. Place upon a black horizontal plane three white discs in a line, at a distance of about two inches from each other, and look at them vertically, taking up a position such that your eyes will be about five or six inches from them, and your nose in a right line with the central disc; close one eye, and look with the other at one of the lateral discs, and you will no longer perceive the disc under the open eye. This disc will become visible again upon altering the distance; and if, upon its reappearance, you close the eye previously open, and open the other, and keep it fixed upon the central disc, you will no longer see the disc which is in a right line with the open eye. That point of the retina on which the image of the disappearing disc is formed in these several dispositions is found to correspond to the base of the optic nerve.

Thus it is clearly demonstrated that, to render vision perfectly distinct, the eye must be so placed that the image is formed upon the sensitive points of the retina in the smallest possible dimensions, and with sufficient intensity. But how is it possible to fulfil those conditions of distinct vision constantly, considering that the distance at which we are able to see objects varies exceedingly? We perceive a star as distinctly as an object placed within a few inches from our eye. To see the most distant objects distinctly, it suffices that their size, and, consequently, the intensity of their light, be proportional to the distance at which they are placed from us. The image of a luminous body recedes from or approaches a lens, according as the body recedes from or approaches the opposite part of this lens. It is accordingly evident that we may, by an act of volition, impart certain modifications to the eye to effect vision at different distances; if you fix your eye upon a black spot on a pane of glass (or upon any other distinct and separate body), varying the distance at which the glass is placed from the eye, you will have a confused impression of the objects at a greater or less distance from the spot, whereas you will see the latter most distinctly, no matter what its position, nor at what distance you place it from the eye (of course, always within the limits of visual power). It is equally true that, whilst vision at a distance of about twelve inches is performed by a sound eye without effort or fatigue, vision at much greater or less distances than this, tires and wearies the eye and impairs its visual powers; thus, after looking for several hours at objects brought very near to the eye, the distinctness of vision is found impaired. To account for the power of vision at all distances we must resort to one of two hypotheses: either we must assume that the retina communicates to the brain the distinct perception of a luminous object, not only when the rays of the latter converge on a separate and distinct point of it—as is the case when they happen to emanate from an object placed at about twelve inches from the eye—but also when they concentrate on a limited circular space of the retina; or we must suppose that the transparent cornea and the crystalline lens may vary in convexity, according to the different distances at which the visual power is to be carried, or that the crystalline lens possesses the power of elongation and contraction.

Olbers has calculated that to admit of equally distinct vision at exceedingly different distances, varying from four inches to many yards, the crystalline lens should be able to alter its distance from the retina to the extent of one-tenth of an inch at the least, the convexity of the cornea and crystalline lens remaining constant, or, *vice versâ*, that the power of varying the degree of convexity to the same extent should be lodged in the two latter bodies, the distance of the crystalline lens from the retina remaining constant. Olbers has calculated, also, that vision would remain distinct within the above given limit, if the radius of the cornea might vary to the extent of about three-tenths of an inch.

The following experiment, made first by Scheiner, will show that, in certain cases, the image of an object will appear at one time double, at another single, to the same eye. Take a piece of paper and make in it, with a needle, two small holes at less distance from one another than the diameter of the pupils embraces; look through these holes with one eye, and you will find that at a certain definite distance the object looked at will appear single, whilst, at a greater or less distance than this, it will appear double; on closing one of the holes, one of the images will disappear. It is evident here that, in the former case, the two luminous fasciculi meet on the retina, whilst in the latter cases, the retina is at greater or less distance from the point of their intersection. Now, as the image is distinct at all distances, if the eye is brought to bear upon the object *directly*, *i. e.*, without the interposition of the perforated paper, it is evident that, to attain this end, the eye must undergo a certain modification.

(To be concluded in our next.)

ORIGINAL CONTRIBUTIONS.

CLINICAL REMARKS ON CASES OCCURRING IN OBSTETRIC PRACTICE.

By CHARLES WALLER, M.D.,
Physician-Accoucheur to St. Thomas's Hospital.

ON PLACENTA PRÆVIA.

I have not been an unconcerned spectator of the controversy which has of late been carried on regarding the mode to be adopted in the treatment of placenta prævia, but have preferred delaying an opinion until I was enabled to form one from facts which had occurred under my own especial notice. Considering the subject to be one of paramount importance, and never having published the results of my own experience, I hesitate not to send the following cases and observations, as the first of a series of communications to your valuable journal, intending, as time and opportunity permit, to forward others for insertion, of an equally practical nature.

There is no position in which the accoucheur can be placed requiring more promptitude of decision, or more energy in executing what is necessary for the safety of his patient, than when superintending cases of uterine hemorrhage; and hence the necessity for fixed principles upon which he may safely rely in the hour of need. The popular term, "flooding," emphatically expresses the fearful rapidity with which the vital fluid sometimes escapes during the period of parturition; it conveys the idea that blood is gushing forth not only in alarming but in such dangerous quantities that the female cannot long survive, unless the flow be speedily arrested.

The causes of hemorrhage during the pregnant state, whether it take place in the early or latter months, before or after the birth of the child, are the same, and they are twofold:—

1. A separation of the ovum, partial or more complete, from its attachment to the uterus; and

2. A want of due contraction in the muscular fibres of that organ.

If the connection be perfect, the integrity of the circulation is preserved, and no blood can make its escape; but if there be any detachment, whether accidental or unavoidable, and the second condition above referred to be present, then the open mouths of vessels are exposed both on the uterine and placental surface, and blood must necessarily escape unless such orifices be closed again; and every practitioner knows that this much-to-be-desired effect can only with certainty be produced by the excitation of regular, persistent, and universal contraction of the uterine fibres surrounding these vessels, which, when in due action, form a very perfect tourniquet. After a very early period of pregnancy the placenta forms the only connecting medium between mother and child; and, therefore, we may say, that in all dangerous hemorrhages during this state, there is a separation of this organ to a greater or less extent, and thus the connection naturally subsisting between the two parts is broken off.

Under certain circumstances (as in accidental hemorrhage, when the fœtus is still in utero) it may be impossible to produce perfect contraction of the womb, and yet it is well known that a certain degree of action can be induced, whereby the bleeding, although not always completely stopped, yet is sufficiently checked to remove the apprehension of the attendant, and to justify him in trusting to Nature's unaided efforts. Coagula sometimes form around and probably within the exposed vessels, and then the arrest is perfect. The intention of every method of treatment in cases of the nature we are now considering must necessarily be to secure to the patient that condition upon which alone her safety depends; and to effect this one object all our efforts should be directed in the management of the several forms of pregnant or parturient hemorrhage: for, although the means must be varied, in order that they may be adapted to the varying circumstances of individual cases, yet in all the same principle is to be kept in view, and the same indication is to be fulfilled. Let us apply these principles in the treatment of placenta prævia, and consider how far the plan proposed by Professor Simpson will enable us to carry them into execution; and here it is but fair to state that I entered upon the inquiry with a strong prejudice against the new method, it being contrary to what I had been taught, and equally opposed to what I had been long teaching others, to suppose that it would be a safe practice to effect a complete separation of the placenta from the walls of the uterus whilst the fœtus was still contained within its cavity. I was also a little surprised at the published statistics of the learned professor, showing the maternal mortality in cases of this kind: the accuracy of his tables has been called in question, and some errors discovered, but these are by no means numerous enough to invalidate the general opinion of the high degree of mortality consequent upon such labours. In the fierce war of statistics which has been since waged and carried on with no little acrimony and personal ill-will (I had almost said abuse), it appears to me that the really practical bearing of the question has been lost sight of. The cause of truth has never yet been advanced by harsh expressions and ungenerous insinuations, and it is much to be regretted that any place should be found for them when prosecuting a scientific inquiry. Professor Simpson believes that in cases of uterine hemorrhage, resulting from placenta prævia, the blood which is issuing forth does not proceed from the open orifices of the uterine sinuses, but from the detached surface of the placenta; and hence, naturally enough, concluded that by a complete separation of the afterbirth, the circulation (maternal) through it would be arrested, and the bleeding of necessity cease. He made the trial in a great number of cases, and the result, as stated by him, was most satisfactory,—the bleeding *did* cease. Two questions presented themselves to my mind in the prosecution of the inquiry:—

1. Will the bleeding be arrested by the complete removal of the placenta from its connection with the uterus? and

2. Is Professor Simpson's explanation of this fact (if it be one) satisfactory?

I put the practical question first, because, if it be not answered in the affirmative, there is an end to the affair altogether; if, however, its truth be established, then is the second question of comparatively minor importance, inasmuch as I am not justified in rejecting the fact because I may not accord with certain views brought forward in explanation. Again, this point may be easily determined, as opportunities are perpetually occurring in which the efficiency of the proposed plan may be tested; and thus by the united experience of the profession an accurate judgment might soon be formed. I have care-

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fully examined my records of cases of placental presentations, and find that the mortality has been greater than I had anticipated. In order to render my subject complete, I shall shortly describe them with the results, so far, at least, as the mother is concerned.

Case 1.—A case of partial placental presentation. Hemorrhage had been going on for several days without much pain. When sent for, I found my patient in a very exhausted condition, but, as the bleeding was increasing, turning was effected and a dead child delivered. Much blood was lost during the operation. Mother died three hours afterwards, never having rallied. Egg, with brandy and ammonia, was liberally given, but without effect.

Case 2.—A case of so partial a nature that the placenta could not be felt until the labour had made considerable progress. Turning was effected, but the child was dead. Mother recovered.

Case 3.—A case of partial presentation. This female had been flooding for several hours, and had been much neglected by her attendant, he having been summoned two hours previously, but had not arrived when I entered the house. She was then lying in one of those deathlike faintings which are so truly alarming, from which she was recovered by the exhibition of stimuli. There were no labour pains; the os uteri very dilatable, though not much dilated; there had been three successive attacks of convulsions; the hemorrhage had abated. Turning was decided on. On the introduction of my hand, the uterus acted smartly; the os uteri contracted around the head, rendering its extrication difficult. Mother recovered, child dead.

Case 4.—With the particulars of this case I am unacquainted. I was sent for about one hour and a half after the delivery, just in time to see the patient expire. I was told it had been a placental presentation, and turning was performed. Mother and child died. Flooding had taken place at intervals during several preceding days, but at the last had alarmingly increased.

Case 5.—Nearly complete placental presentation occurring between the sixth and seventh month of pregnancy. The labour proceeded slowly, and after the discharge of the liquor amnii, the practitioner was alarmed at a sudden and rather profuse gush of blood, and, therefore, requested me to meet him in consultation. On examination, I found the placenta attached nearly to the whole circumference of the os uteri, the hemorrhage trifling, the uterus firmly contracted around the body of the child, and the female in good condition. There was here no necessity for manual interference; in a short time the pains strengthened, the placenta was expelled, and soon followed by the fœtus, which was extruded in a doubled position, it having been a presentation of the back. There was no hemorrhage. Mother recovered.

Case 6.—In this case also the placenta was born one hour and a half before the child. The fœtus had been long dead; there was, therefore, no circulation through the placenta, and, consequently, no hemorrhage. Mother recovered.

Case 7.—This case was under the care of Mr. Gravenor, who had been engaged to attend a lady of very delicate habit, now pregnant for the first time, although she had been married about six years. Flooding had occurred at intervals during the last month, but now became greatly increased. On examination, the os was found hanging loosely into the vagina, and, although thin and soft, but little dilated. The position of the uterus was so high up that the finger reached it with difficulty. The thick fleshy substance of the placenta could, however, be easily recognised through its opening mouth. Although much blood had been lost, the patient was, comparatively, comfortable, there was no faintness, and the pulse, though hurried, beat with considerable power. Some nourishment was given, and we waited patiently by the bedside, hoping that there would soon be more dilatability of the maternal soft parts. After waiting a couple of hours, restlessness and faintness supervened; the pulse was more feeble, although the hemorrhage had not increased. Delivery was then decided upon. Some difficulty was experienced in passing the hand into the vagina, and when the os uteri was reached it was felt to be dilatable, but not dilated to any great extent. On passing the hand into the uterus the breech was felt presenting; a leg was therefore easily secured, and brought through the os externum, when the hemorrhage appeared to cease; there were regular pains, and everything justified the expectation of a favourable termination. In a few minutes there was a renewal of the bleeding, and the patient became very faint, but the child was easily extracted (dead), after which the uterus contracted well. In less than ten minutes flooding again commenced, and the patient sank into an alarming state of exhaustion. The placenta not coming away, I introduced my hand, and succeeded in removing it, though with great difficulty, as there were very firm adhesions to the uterine surface. The blood all this time was flowing in alarming quantities. Stimuli were given internally, and cold applications used externally, by which the flow was checked. The pulse did not rally: it was imperceptible at the wrist, and could scarcely be distinguished in the carotids; the eye was set, the jaw dropped, and the breathing very laborious. Although the patient seemed *in articulo mortis*, I determined to give her the benefit of transfusion. The vein was promptly laid bare by Mr. Gravenor, but now an unexpected difficulty presented itself: as soon as the puncture was made in the arm of the man who had consented to supply the blood, he became faint, and there was a slight trickling only from his vein; some brandy-and-water was given him without avail. Another person was procured, but by the time we were prepared to operate, all was over; the breathing had ceased. As the second person bled freely, I threw in two or three ounces of blood into my breathless patient, but of course without benefit. It was remarkable that in this case the first attack of syncope was fatal; the body was so warm, even after death, that the bystanders could scarcely believe that life was extinct.—*Post-mortem* examination: A small knuckle of placenta still remained attached to the lower part of the uterus, bound down by an almost cartilaginous adhesion; every part pale and bloodless; the heart flabby, and contained a large coagulum in the right side. The husband informed me that there had been a remarkable deficiency of sexual desire in his late wife; that coition was never productive of pleasure, but, on the contrary, of great annoyance, with but a solitary exception, during the six years of her married life, and from that single period he dated her pregnancy. In consequence of this information, the sexual organs were examined with great care, when the ovaries were seen to be very scantily developed, and the clitoris so small as to be scarcely distinguishable.

(To be continued.)

ROYAL BERKSHIRE HOSPITAL.

SURGICAL REPORTS AND OBSERVATIONS,

By F. A. BULLEY, Esq., F.R.C.S., Surgeon to the Hospital.

Laceration and contusion of the hand, fracture of most of the carpal and metacarpal bones, caused by machinery; amputation of the forearm. Remarkable effects of the operation.

James D., aged forty-seven, a stout muscular man of temperate habits, admitted June 1, 1847. States that, while he was occupied in drawing out some sheaves of straw from a thrashing-machine, his foot slipped, and, falling forwards, his hand and the lower part of his arm were taken into the machinery and crushed by a blow from the spoke of a fly-wheel in rapid motion. It appeared as if one of the spokes of the wheel had forced the hand against a flat wooden portion of the framework of the machine, and thus caused the fracture of the bones, and the other injuries. He had not lost any considerable quantity of blood from the accident, but appeared rather faint and depressed by the shock. The bones of the forearm were not broken, but the skin, for some little distance from the wrist upwards, was separated and irregularly torn from the fascia underneath, which was covered by a layer of coagulated blood from the small ruptured vessels of the lacerated subcutaneous cellular membrane.

As, in consequence of almost all the bones of the carpus and metacarpus being broken, and the soft parts much torn and contused, there appeared to be no possibility of saving any useful portion of the injured hand, amputation was performed, with as little delay as possible, by the circular method at the middle of the forearm, thus cutting clear of the injured skin, and the bruised muscles nearer to the joint. He lost scarcely any blood from the operation, and, apparently, suffered but little shock from its performance. Being put to bed, he shortly recovered himself, and in the evening expressed himself, with the exception of a little pain in the stump, as quite comfortable, but indisposed to sleep, notwithstanding an anodyne draught had been given him to produce rest.

2. Had a little sleep the early part of this morning. Complains of a pain in his chest, with a slight sensation of constriction or tightness in his breathing; no particular thirst or fever; pulse regular, and quiet; the stump, in which he has had no unusual pain, looks clean and healthy. The anodyne to be repeated in the evening.

3. Has passed a very restless, uncomfortable night. This morning, having just previously complained of a pain in the right side, and of a feeling of constriction in the chest almost insupportable, he was suddenly seized with most violent vomiting, bringing up great quantities of dark-green bilious fluid, together with excessively uncontrollable purging. He was so much affected by repeated attacks of the vomiting and purging that he shortly sunk into a state which led those who saw him at this time to believe that he was dying; becoming quite insensible, the heart's action and pulse at the wrist being scarcely perceptible. Eyes fixed, and livid lips; deep and laborious respiration, with frothy mucus escaping from the mouth. At one time he appeared to be so near his end that one or two of my colleagues, happening to see him, thought there was no chance of his recovering from the extraordinary collapse into which he had fallen. Mustard plasters were immediately applied to the pit of the stomach, and a blister to the neck, brandy in considerable quantities being poured down his throat; but, notwithstanding these means were assiduously employed, he remained in a state of almost complete insensibility for more than an hour, when he gradually, but slowly, recovered; still, however, complaining of the sense of constriction in his chest. As soon as he was able to take medicine of his own accord, he was ordered the following mixture:—

℞. Spirit. ammoniæ aromat., ʒjss.; magnes. sulphat., ʒiv.; confect. aromat., ʒj.; misturæ cretæ comp., ℥vj. M. ft. mist. cap. 4ta partem 4ta quaq. hora.

He appeared to be considerably relieved by the medicine. To have four ounces of port wine during the day.

4. Feels extremely languid this morning. On auscultation, the action of the heart is apparently normal, but I can detect a slight tremulous purring when the stethoscope is placed over the upper part of the sternum, such as is said to be heard when there is dilatation of the arch or ascending portion of the aorta; the "frémissement cataire" described by Laennec. The lungs, although he has been subject to occasional severe fits of coughing which he has thought to be asthmatic, are apparently in a healthy state. His wife now informed me that he had been for several years past subject, at times, to most severe and suddenly-occurring paroxyms of coughing, accompanied by great tightness in his breath, and palpitating sensations in his chest, which had occasionally been so distressing as to

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oblige him to rush to the open window for relief, like a patient with spasmodic asthma; these attacks had latterly became more frequent and harassing.

5. Still feels nervous and languid, but the sensation of constriction and fulness is diminished, and the circulation is beginning to recover its wonted strength. To continue the mixture and wine, and to be kept perfectly undisturbed and quiet.

24. Has been gradually improving since last report. He has now scarcely any feeling of tightness at the chest, but there is still the same slight tremulous purring noise, before noticed, perceptible on auscultation. At the end of six weeks from the period of his admission, the stump wound had become completely healed; and he left the hospital much improved in his feelings and appearance, having lately only occasionally experienced the sensation of constriction—a freedom probably due to the quiet and careful discipline of hospital treatment.

Observations.—I have related this case principally as an example of the presumable effect of a capital operation, in bringing into sudden action alarming symptoms of thoracic disease, even where, as in the present instance, there was scarcely a suspicion of its existence. It would show, also, the expediency of making inquiries into the previous history of the patient's health prior to undertaking an operation, especially in any curtailment of the body by amputation, whereby a portion of the blood, which would otherwise be circulating through the amputated limb, is made to travel through a smaller space, overloading the heart and vascular system, and thus producing those almost unaccountable disturbances of organic health, which sometimes follow operations of this kind in persons who are the subjects of, or disposed to, organic disease, especially where but little blood has been lost in the operation. Something of the same kind occasionally happens after operations in which the circulation has been only temporarily interrupted, as by the ligature of arteries at the root of the neck, an instance of which I have myself witnessed, where I had little doubt that the operation stood in the relation of cause and effect to a sudden and severe attack of bronchitis, which destroyed the patient. These circumstances, gravely considered, would indicate the adoption of measures calculated to obviate similar untoward results, such as the abstraction of a small quantity of blood after the operation, repeated if necessary, together with other anti-plethoric means carefully carried out, until the vascular system had become habituated to the unavoidable contraction of its circuit. The quantity of blood lost before or at the time of the operation would, of course, modify or obviate the necessity for these precautions.

Scrofulous disease of the knee-joint; abscess, followed by destruction of the joint; amputation.

William G., aged twenty-three, admitted April 20, 1841. He stated that he had suffered from a weakness of the knee-joint in walking, for four or five months prior to admission, which had been gradually increasing until last week, when the joint had become considerably swelled, and he found himself unable to put the limb to the ground without great pain. His general health had suffered in proportion, having become emaciated, with night sweats and other signs of commencing hectic fever. He had previously enjoyed tolerable health, never having been affected with scrofulous disease of any of the other joints or tissues, and had led a very temperate life. He did not recollect having bruised or struck the knee in any way.

On examination, the joint presented the following appearances of disease:—It had the peculiar rounded appearance of scrofulous enlargement. It was not greatly swelled, but was extremely tender to the touch, and to the feel it was evident there was an unusual quantity of synovia or purulent secretion in the joint, which distended the capsular ligament, more especially on either side of the ligamentum patellæ, where the fluctuation was very distinct. The muscles of the thigh and leg were wasted from want of use, making the joint appear to be larger than it really was. He had very little rest at night. Apply ten leeches to the knee, to be followed by a cataplasm of vinegar, water, and bran.

℞. Potassæ hydriod., gr. xxiv.; decoct. cinchonæ comp., ℥xij. M. cap. cochl. iij. larg. ter in die.

22. No better. Ten more leeches to be applied.

May 8. A visible improvement in his appearance and general health. The acute symptoms have subsided, but the joint continues distended, and is still tender to the touch. He has considerable pain at night, with great restlessness.

℞. Ferri carb., gr. x.; pulv. Doveri, gr. v. ft. pulv. bis die sumend.

14. Not so much tenderness about the joint; enlargement, however, continues. Apply a blister.

22. The blister has not produced any diminution of the fluid in the joint. Decoction of bark, with dilute nitric acid, twice a day.

28. Three blisters have been applied without producing any absorption of the fluid. The joint was now encased in mercurial plasters, after the manner of Mr. Scott.

℞. Morphiæ acetat., gr. ij. ft. pilul. iv. Take one every night.

June 10. The strapping has had the effect of removing the fluctuating swelling of the joint, and he is able to walk about the ward without much pain. His general health had become in some measure improved, but during the last week he had been troubled with a diarrhœa, which had thrown him back, and he was again obliged to take to his bed. Symptoms of inflammation, external to the joint, which had again become greatly enlarged, had also occurred, which made it painful for him to move the joint.

It would not be worth while to follow this case through its more minute details; it is sufficient to say that an extensive abscess, at first apparently unconnected with the joint, formed around it, and was ultimately opened at that point where it was most prominent, viz., on the inner side of the ligament. patellæ. The incision gave vent to about a pint and a half of matter, mixed with blood. At this time his health had become greatly impaired. Shortly afterwards hemorrhage took place from the cyst, which weakened him very much. Subsequently he was seized with a fit of shivering in the night, and complained of great pain in the upper part of the calf of the leg, the integument of which gave way, and about a pint of dark-coloured grumous blood was discharged. Afterwards, frequent hemorrhage took place on the slightest motion.

As I had reason to believe that the knee-joint was extensively implicated in the disease, I minutely examined it, and finding that on moving it in different directions the peculiar looseness and roughness indicative of the destroyed function of a joint were observable, and as I thought the patient might die from frequently recurring hemorrhage, I determined, in consultation with my colleagues, to remove it.

July 23. Having ascertained that the patient was free from visceral disease, I amputated the limb by the circular incision. He lost but a very small quantity of blood from the operation.

Dissection of the amputated limb.

The knee-joint was uniformly enlarged, and had a hardened feel externally, owing to the thickened state of the ligamentous tissues. On the forepart of the head of the tibia, just on one side of the insertion of the ligament. patellæ, was a ragged opening in the integument, filled up with spongy fungous granulations, the spot where the matter had been evacuated by incision. From this there was no immediate communication with the cavity of the joint, but a probe passed some way downwards, through the broken-down and almost putrid cellular tissue, towards the inner side of the leg, where there were two other openings, the same which had been caused, by the spontaneous bursting of the abscess, when the hemorrhage occurred. On dissecting off the integuments, the cellular membrane underneath was in different states of disorganization, being simply reddened in some parts, while in others it had completely sloughed. Portions of coagulated blood were found in its substance, especially in the neighbourhood of the last-mentioned openings; there was also a large clot lying immediately in contact with the periosteum of the upper and inner part of the tibia, escaped from the rupture of a rather large vein, the opening of which was clearly distinguishable. On the inner side of the ligament-patellæ was a valvular opening, through the alar and capsular ligaments, into the joint; and it was this valvular fold in the ligaments which impeded the entrance of the probe into the joint. The appearance of the ulcerated opening led me to think that the disease had commenced in the joint, and that the pus had made its way outward, and diffused itself into the surrounding cellular tissue.

On removing the muscular and cellular tissue from the ham, a considerable quantity of greenish-coloured fetid matter was found, which seemed to have escaped from the cavity of the joint through a ragged ulcerated opening in the posterior ligament of Winslow.

The joint was partially filled with pus, similar to that found in the popliteal space.

The capsular ligament was thickened, and (especially on the inside of the joint) converted into a tough and semi-cartilaginous substance. The ligament. patellæ and alar ligaments participated in some measure in this change of structure. The synovial membrane reflected over these parts was in a pulpy, softened state, and of a reddish colour, but was not distinctly ulcerated in any part, except in the situation of the openings before described, and on the inner surface of the patella, where there were slight ulcerated fissures in the cartilage.

The cartilage covering the outer condyle of the femur, and on the opposing portion of the head of the tibia, was not perceptibly thinned, and the semilunar cartilage on that side was entire; but the cartilage on the inner condyle seemed quite worn away, as it were by attrition, leaving a surface of smooth but reddened bone uncovered by synovial membrane. The internal semilunar cartilage had entirely disappeared, and the inner articulatory surface of the head of the tibia had lost its cartilage, exposing, like the corresponding portion of the femur, a surface of smooth bone. The crucial ligaments were entire, but of a reddish colour and covered with flocculent lymph. The ends of the bones composing the joint, although somewhat larger, were not much softer than natural.

Sept. 15. The patient's health has been gradually improving since the operation, and the stump is now almost healed. There has been some tenderness and enlargement of the remaining portion of the bone, with a considerable discharge of pus from the face of the stump; but these symptoms of what would seem to be a tendency to a return of the disease have now entirely disappeared, and he was shortly afterwards discharged from the hospital.

Observations.

It would be difficult to say exactly in what particular texture of the joint the morbid action in this case originated. It is probable, however, that it commenced in that peculiar passive thickening of the synovial membrane, so well described by Sir B. Brodie, which in its progress extends to the other tissues, and ultimately, sooner or later, terminates in the destruction of the joint, observing, "I have already remarked that this disease is peculiar to the synovial membranes, at least that I have never met with it in any other part of the body; but it belongs to the same order with tubercles of the lungs, scirrhus of the breast, the medullary sarcoma or fungus hæmatodes of the testicle, and numerous other diseases in which the natural structure of the affected organ is destroyed, and a new and different structure is added in its place. To these, also, it bears a near resemblance in its progress. Thus, tuber-

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cles in the lungs, in the first instance, occupy the vesicular and interlobular substance, but ultimately they inflame and ulcerate, abscesses form in them, and then the pleura, the bronchia, and other contiguous parts become affected. Similar circumstances mark the progress of other maladies of the same description.

Of course, the true diagnosis of this morbid alteration in the synovial membrane of the joints is in its commencement extremely difficult, but I have fancied I have been able to detect it in a few cases which have come under my observation in the hospital, where there have been present some of the signs referable to this condition, as commencing stiffness, and some slight swelling, of that peculiarly rounded character which distinguishes even the earlier stages of scrofulous enlargement occurring in scrofulous habits. In these cases I have used with advantage the tincture of iodine locally to the part, as suggested by Mr. Buchanan; and have every reason to believe, from the effects resulting from its use, that it is—when combined with perfect rest, in this, as in almost every other affection of the joints in their early stages—a very valuable remedy. Latterly, however, I have employed strips of plaster composed of iodine, combined in particular proportions with some adhesive material (as prepared, under my direction, by Mr. Ewens, of Jermyn-street, St. James's), with tolerable tightness round the joint; and by this means have succeeded in several cases of commencing scrofulous enlargement of the articulations; and, in a few of a more advanced stage, in restoring the functions of the joint. It differs only from the ordinary iodine plaster of the hospitals in being rather stronger and more carefully prepared; and it appears to have an advantage over the tincture of iodine, inasmuch as it combines the good effects of moderate pressure with the ordinary action of the tincture in favouring interstitial absorption, and is not followed by the burning, tingling heat and irritation of the skin which the latter occasionally produces.

CHLOROFORM IN SURGICAL OPERATIONS.

Communicated by J. W. GARLIKE, Esq., Rickmansworth.

It will, I presume, be generally admitted that it is the duty of every surgeon, having cautiously made himself acquainted with the properties and effects of any new agent (such as the one in discussion), to reflect deeply as opportunity may present itself in his own circle of practice, and to contrast the result of his experience with that of others; and should any discrepancy present itself, or any new idea strike him, it should receive publicity. This, surely, is the most easy and ready way of eliciting truth, and it is much to be regretted that it is not more generally adopted; it would be the means of frequently checking those highly coloured statements so greatly tending to throw dust in the eyes of the general practitioner in the country, whose arduous duties press upon him too heavily to afford him the opportunity of devoting much time to the literature of the profession.

For the present, and in all probability for some time to come, it must be to the medical journals alone that we can look for information on the use of chloroform. Notwithstanding the fact that many of the communications transmitted to you may not propound new views, new facts, or new suggestions, yet, if they merely confirm the observations set forth by others, they are not without their value.

Case 1 was a little boy aged eight years, who had, from a peculiar susceptibility of mercury, lost by sloughing a portion of the right cheek, together with a part of the superior maxilla, exposing the side of the tongue and the teeth of the under jaw, those of the upper jaw having lost their attachment during the process of exfoliation. My object was to unite the upper and lower portions of the cheek, and thus to reduce the opening of the mouth to its natural dimensions.

It is useless to tax my readers with a detailed statement of the operation, suffice it to say that it was after the manner of the operation for hare-lip; of course more tedious, and, as is usually the case in operations about the face, attended with considerable and troublesome hemorrhage. In this and the following operation I was assisted by my kind and intelligent friend Mr. Haynes Walton, of Bernard-street, who has given me his valuable assistance on many previous occasions in operations of greater importance. In the present instance, a piece of lint was saturated with half a drachm of chloroform and applied to the nose and mouth, over which was placed some oil-silk to prevent too ready evaporation; in a few minutes the patient yielded to its influence, and manifested perfect insensibility to the first part of the operation, but before it was completed consciousness returned, and the relative advantages of operating on a subject in a state of quiescence, as contrasted with one offering strong resistance, was strikingly apparent. I immediately attempted to readminister the chloroform by applying it to the nose only (it being impracticable to do so to both mouth and nose, in consequence of troublesome bleeding into the mouth), but without producing any effect; the operation was, therefore, completed during a state of consciousness.

Case 2 was a boy, aged five years, who had been three years since the victim of a most extensive and deep burn of the neck; a strong bridle of condensed cellular tissue, extending from the chin to the humeral end of the clavicle, bound the head firmly in one position, approximating it closely to the chest, and producing frightful deformity. Here the uses of the chloroform were strikingly manifested. I administered one drachm in the manner before described, and insensibility followed in one minute. The lint was kept over the mouth and nose during the whole operation, which occupied the space of half an hour: that is, in making the necessary dissections to set the head free, and adjusting and dressing the wound, &c. At the expiration of thirteen minutes, the little patient showed slight signs of consciousness, when half a drachm more chloroform was administered, and the most profound insensibility followed, no sign of consciousness returning till five minutes after the completion of the operation, when sickness of rather a violent kind followed.

Remarks.—From the statement I have given of the two operations in question it is evident that chloroform is not alike available in all cases. In the first case I was unsuccessful, from the fact that chloroform could not be satisfactorily inhaled through the nose only, and it was impossible to apply it to the mouth in consequence of bleeding. It would then suggest itself to me, in operations implicating the mouth, to use chloroform, but in doing so to get the patient as decidedly under its influence as possible, and keep it up for some little time previously to commencing the operation, so that we may, at any rate, spare the patient a portion of suffering; and, seeing the child in Case 2 did not recover his consciousness for five minutes after the operation was concluded, may we not hope that, under an efficient dose, we may still accomplish many painful operations, presenting less formidable symptoms than existed in Case 1, before sensibility returns? There are yet other obstacles offering themselves to the happy effects of chloroform in operations about the mouth; sickness, as in Case 2, would have been highly prejudicial to the fate of Case 1, where, from the extensive loss of substance, great tension was necessarily made on the soft parts in approximating the edges of the wound. Again, in other operations which have come under my notice, although complete insensibility be present, and the muscles generally be in a relaxed state, the lower jaw will be firmly locked against the upper, causing considerable hindrance.

Case 2 exemplifies one of those successful instances where chloroform stands pre-eminent, and offers a kindly aid to the general practitioner such as he has long stood in need of: for, situated as I am in a district of which four-fifths of the population are manufacturing, I am frequently called upon suddenly to perform capital operations without being able to command that assistance which is so desirable, and which in towns is considered absolutely necessary.

In the operations here described, Mr. Walton and myself were the only persons present; and without the soothing influence of chloroform, where such extensive dissection was necessary as in Case 2, and in so young a subject, it would have been impossible to have done what we deemed requisite. In both cases the muscles were in a complete state of relaxation; the breathing slow and laboured; pulse slightly accelerated, but soft; and the skin moist.

I would yet make one more comment on the uses of chloroform, as recommended by many eminent men in obstetric practice. There appears yet some considerable discrepancies amongst the profession respecting its influence on the uterus when thrown into strong muscular contraction; as yet I have not used it in this branch of my practice: for, could I feel convinced that efficient uterine pains would proceed under its employment, there would still exist in my mind another obstacle to its use, viz., that, should the patient to whom chloroform had been administered be of that peculiar idiosyncrasy of constitution where extreme syncope follows the emptying of the uterine cavity dependent on the shock done to the nervous system, much embarrassment must assuredly follow its employment, and the practitioner in attendance would probably regret the use of an agent having the power of masking symptoms at a moment when the admission of a doubt may prove fatal to the patient.

PROGRESS OF GERMAN MEDICAL SCIENCE.

By Dr. BUSHNAN.

I do not think that the English practitioner is as informed as he ought to be concerning the progress of German medical science, or that he is fully aware of the fertility of the German mind in originating bold conceptions and useful speculations. Germany has, in less than three-quarters of a century, given birth to the eccentric studies of phrenology, mesmerism, homœopathy, and hydropathy; and, not now stopping to consider whether these additions to medical science be sound or unsound, true or false, useful or useless, I would merely observe that the reflections of a people, none of whose competitors have produced parallel inventions, are worthy of more consideration than the English medical press seems inclined to give to them. Again, the Germans are a profoundly reflective, but not a practical, people; while with the English these qualities are reversed: the German excogitates, the Englishman turns to account; and thus I conceive it would be well if our more practical countrymen were made better acquainted with the progress that medical science is making among the colleges and hospitals and scientific associations of the fatherland. My papers in the *Medical Times* upon the surgical practice of the late Professor Deiffenbach have, I think, communicated some useful information; and, with the above views, I now propose to continue a series of similar desultory and immethodical articles upon the progress of medical and collateral science in Germany; and first, as a means of relieving one of the greatest torments that flesh is heir to, I offer—

1. A New Remedy for Toothache, more efficacious than creasote, and hitherto always successful in the cases where I have seen it employed. This is carvacrol (C^{36} H^{18} O^{2} – $HO C^{36}$ H^{17} O). Carvacrol, according to Professor Schweitzer, is formed by the action of potasse, iodine, or hydrated phosphoric acid, upon oleum carui, ol. thymi; and, according to Chaus, by the action of iodine upon camphor. Schweitzer has shown that the product from camphor is the same as that obtained from the oil of caraway.

Preparation.—I. Ol. carui is to be distilled

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MEDICAL TIMES

with hydrated phosphoric acid. The liquid that passes over is to be poured back into the retort until it no longer retains the smell of the oil of caraway. The carvacrol separates itself in the form of an oil from the phosphoric acid.

II. In the same way a saturated solution of iodine must be distilled with oil of caraway until no more hydriodic acid is formed. The red mass which remains in the retort must be operated upon by potash. The yellow solution is to be distilled. Carvene ($C^{10}H^8$) passes over, and the carvacrol remains. It is to be purified by redistillation.

III. Equal parts of camphor and iodine are to be rubbed together and distilled until no red vapour is given off. The black mass remaining in the retort contains carbon, resin, camphine, colophene, iodine, and carvacrol; that in the receiver, camphine, colophene, carvacrol, and a little iodine and hydriodic acid, which, on standing, separates into two layers. The upper layer is to be distilled, and at 180° camphine passes over, while colophene and carvacrol remain. This is to be acted on by potash. The carvacrol may be obtained from the alkaline solution by the action of an acid and by distillation over purified lime. —(Claus.)

Carvacrol is an oily liquid, very similar to creasote, with a very unpleasant smell and strong taste. Applied on a piece of cotton to a decayed and painful tooth, it gives immediate relief. I hope Mr. Hooper will prepare this successful and hitherto unpublished remedy, and enable the profession to judge of its value.

2. On the Occurrence of the Sarcina Ventriculi in the Human Stomach.—There are few diseases for which so many remedies have been proposed as dyspepsia; and, nevertheless, there are few diseases more empirically treated. Almost every journal we take up has something to say upon the subject; and, if all the sayings and proposals for the treatment of indigestion during the last few years were to be collected, the volume would reflect but little credit upon medical practice, and establish the melancholy fact, that it resembled rather a mode or fashion than a solidly established and grounded art. And, more than this, it would show that now one remedy, now another, had been not only in vogue, but resorted to in every form of stomach disease; and, if at the same time we could inspect the prescriptions of the leading physicians of any given date, we should find a wonderful sameness in the means they had employed. The reason of all this is that we are still wofully deficient in our knowledge of the pathology of the disease, the phases of which are as variable as those of the "ambiguum protea;" and hence it is that every fact relating to the cause of the miseries the dyspeptic endures ought to be recorded, and the knowledge of it widely published. Of this nature, as I think, is the occurrence of the sarcina ventriculi in the human stomach. The reader is perhaps aware of the great interest that has lately been excited by the parasitical organisms, whether animal or vegetable, that have been discovered in the human body, and the importance—whether exaggerated or not—which some authors have attributed to them. I would now, however, merely refer to a case which was published some five years ago in one of the Edinburgh journals by Mr. Goodsir, in which he relates his discovery of a vegetable substance in the matters vomited by a patient labouring under dyspepsia. The history of the case was that of a young man labouring under indigestion, who always vomited a short time after meals, and that a multitude of means had been unavailingly used to check so disagreeable a symptom. At length, examining the vomited matter under the microscope, Mr. Goodsir discovered a vegetable existence, which, on account of its resemblance to a bale of goods tied together with cords, he called sarcina ventriculi. Mr. Goodsir could not discover any external means by which this plant had entered the stomach and made that its habitat; and he therefore concluded that it had originated in that viscus, and was proper to it, just as certain parasitical animal existences are proper to certain organs—for example, the hamulæria subcompressa to the bronchi; the strongylus gigas to the urinary passages; the polystoma pinguicola to the fat of the ovaries; the cysticercus cellulosæ to the choroid plexus; the muscles and aqueous humour of the eye; the filæria medinensis to the cellular tissue; the echinococcus humanus to almost every organ of the human body; and the six entozoa, which are found only in the several portions of the alimentary canal, including those branches from it constituting the gall-ducts. Mr. Goodsir's discovery was soon after verified by Mr. B. Bell, of Edinburgh; and Mr. Bush also described the sarcina in "The London Microscopical Journal" of the same year. To these works the reader is referred. Four similar cases have lately been published by Professor Hasse ("Mittheilungen der Naturforschenden Gesellschaft"), which I shall abridge:—

Case 1.—H. Knecht, aged thirty, a labourer, of very miserable appearance, had, as a boy, suffered much from scrofula. In his eighteenth year he became a shoemaker. At twenty, in consequence of severe indigestion, and repeated vomitings after meals, he left his trade, being recommended that a less sedentary employment would be better for him. He became a field labourer; but the change of occupation did not affect the disease, which continued with very little modification; experience, however, taught him that he was better when he ate sparingly and took aperient medicine. In 1846 he applied to Professor Hasse, and was admitted into the hospital. He was then very thin and cadaverous-looking, complaining of constipation, heartburn, with acid eructations and severe pains in the stomach, which were always aggravated by food, and continued until relieved by vomiting. He underwent the regular routine of practice, but without avail; on the contrary, although regimen and purgative medicines gave him some relief, the vomitings continued; he became daily thinner, and his bowels very irritable; he passed much slimy matter by stool, and, examining this under the microscope, Professor Hasse immediately recognised the sarcina among it, which was also found in the matter vomited.

Case 2.—J. Weber, a peasant, aged forty-six. Three years previous had begun to complain of pain in the region of the stomach, sour eructations, and occasional vomiting after meals. In July last year, these became so severe that he was confined to bed, and in the following November he had suffered severely from diarrhœa, passing much blood and slimy matter with his stools. When he applied to Professor Hasse he was very weak, much emaciated, complained of great pain in the stomach, particularly after meals, flatus, and repeated vomitings of sour matter. The sarcina was sought for and found in great quantities.

Case 3.—J. Maag, a ragman, aged forty-seven. Had long laboured under indigestion, with frequent vomitings; is very feeble and thin. Milk immediately excites vomiting, and coffee and vegetables especially disagree with him. Appetite good, with a constant craving for food; flatus and heartburn after meals, until relieved by vomiting. Sarcina found.

Case 4.—J. Flachman, a weaver, aged forty-seven. Has been ill more than two years, and suffers from flatus, heartburn, and vomiting after food. Sarcinæ were found in the vomited matter. Another very similar case has also lately been published by Dr. Schlossberger, of Tirbingen ("Archiv für Physiologische Heilkunde").

In all the cases the patients were affected in a very similar manner with cardialgia, sour eructations, vomiting after meals, and great emaciation. All means of cure had failed until the sarcina was discovered; and then the symptoms readily yielded to repeated doses of the nitrate of silver, continued so long as sarcinæ were to be found in the fæces. This treatment lasted from six to eight weeks, when all unpleasant symptoms had ceased, the patients' health was restored, their strength returned, and they all got rapidly well.

The practical importance of these cases is too obvious to require comment: and now a few words as to the origin of the sarcina ventriculi. The varied and repeated experiments of Hasse and Schlossberger, conducted with all that excess of patience and perseverance which characterize the German, failed to multiply the plant out of the stomach, or even to "acclimate" the plant, if I may use the term, in the stomachs of the dogs and cats that were fed with food containing it. I would, therefore, conclude that the parasite originated in the stomach, and was proper to it. Whether it was the cause of disease or the consequence of disease, is another question; at any rate it is obvious that the stomach in which it was found was a congenial nidus for its production, out of which it could not exist; and, indeed, of the five opinions which have been received as to the origin of parasites found in the human body, that which seems infinitely the most tenable, the least objectionable, and the best supported at once by common sense and by all the most enlightened views of modern physiology, is that of Rudolphi and Bremser, that parasites in general are generated primarily, not from ova at all, but spontaneously in each organ in which they are found. This is not a return to the "equivocal generation" of the ancients, nor is it a renewal of the "univocal generation," supported by Redi, by which was implied the communication of life to certain pre-existing substances by already living beings; but it is the formation *de novo* of smaller living beings by the separation of certain living particles from larger ones; and, for my own part, I am abundantly satisfied of this truth, as to the production, not only of parasites, but of the proper offspring of every kind of animal, the formation of the ova in the ovaries of which, like that of semen in the testicles, being attributable only to secretion; a fact which becomes sufficiently obvious when we contemplate the strict analogy which subsists between the ova of the most perfect animals and the germ of those which are least so. This germ, as in the polypus, is at first a part of the animal itself, and as certainly the product of secretion as any other of its organs; it constitutes primarily a sprout or limb of the parent, and it is only when afterwards thrown off that it enjoys an independent existence. In all these circumstances the ovum of the human being strictly corresponds with it; and, if we admit that ova of the most perfect animals are thus the products of the secretion of the ovaries, we must, *à fortiori*, allow the possibility of animals so much less perfect being in like manner the product of other organs of the body, each of which is capable of forming living tissues which are susceptible, in like manner, of an independent existence. The objection to this doctrine, founded upon its implying a power of creating life, I need hardly advert to. Such an objection could never have been urged had the real nature of life, consisting as it does only in a peculiar mode of being—a series of proper phenomena—been rightly understood. Animals can create nothing; but they can form, out of ultimate elements, certain new compounds endowed with irritability, which, when acted upon by proper stimuli, give rise to the display of all the phenomena in which alone life consists. It is absurd to talk of finite beings creating anything; but it is worse than absurd to talk of their creating that which has no existence.(a)

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meeting of Dec. 27, 1847; M. Brongniart in the Chair.

Chloroform.—M. Girardin and M. Verrier (of Rouen) communicated the results of their experiments upon animals. According to these observers, it is not by occasioning asphyxia that

(a) See "The History of a Case in which Animals were found in Blood drawn from the Veins of a Boy." Highley. 1833.

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chloroform produces insensibility; a small quantity of that substance injected into the circulation causes unconsciousness and ebriety as readily as inhalation. Its effects would, therefore, be due exclusively to the action of chloroform upon the brain and nervous centres.—M. Amussat endeavoured to explain the differences of opinion expressed by various experimentalists, on the change of colour of the arterial blood during inhalation. M. Amussat believed these differences arose merely from the operative process employed. The veins and arteries should be dissected before inhalation in one region, and their colour well observed; during the production of the effects of ether or of chloroform, the artery would be seen gradually to assume a darker colour.—Dr. Blanchet forwarded some remarks upon the exhibition of oxygen gas, pure or mixed with air, for the purpose of removing the accidents produced by chloroform; and also drew the attention of the academy to the property possessed by that agent of causing dilatation of the pupil, by which several operations on the eye might be facilitated.

ACADEMY OF MEDICINE.

Meeting of Dec. 28; M. Begin in the Chair.

The meeting was almost exclusively occupied by the election of a treasurer. M. Patissier obtained a majority of votes, and was appointed to the office.

M. Guersant, jun., presented to the academy the anatomical preparation of a cerebriform cancer of the femur, removed from a child, aged five years. The operation had been performed after inhalation of chloroform. The child was doing well.—Meeting adjourned at four P.M.

Icterus of Newly Born Children.—Inaugural Thesis by Dr. Hervieux.—The author recognises only one sort of icterus in newly born children, constantly appearing during the first month of extra-uterine life, occasioning always the same symptoms, and furnishing invariably the same results on dissection. M. Léger, in 1823, asserted that induration of the cellular tissue was constantly accompanied at its onset by icterus; this opinion M. Hervieux does not adopt, and brings forward in opposition ninety cases of sclerema, in thirty-one of which, only, jaundice was observed; and further, forty-five cases of icterus, in thirty-one of which, only, induration was noticed. Enteritis is not either, in M. Hervieux's opinion, the cause of the icterus of first infancy; it is merely a complication. The author cannot, from his own statistics, confirm the view of those who ascribe this form of jaundice to inflammation of the liver. The yellow colour of the skin was also, by some, ascribed to a sort of general ecchymosis, or transformation of the red colour of the skin of the newly born child. This theory must fall to the ground, when it is recollected that the deep-seated organs—the brain, heart, and osseous structures—partake of the yellowish tinge observed on the skin. The jaundice of the infant is considered by M. Hervieux merely as a momentary disturbance of the functions of the liver, which serves in intra-uterine life the purposes of hematosis, and is suddenly called into action after birth for the secretion of bile. All the tissues of the body are susceptible of acquiring the yellow tinge in proportion with their relative degree of vascularity. Dr. Hervieux never met with a single case of obstruction of the biliary ducts, and observed in the kidneys two sorts of yellow stains: one variety, the result of jaundice, consists of a uniform chamois colour of the tubular substance, which terminates at the separation of the latter from the cortical substance; in the second variety, the yellow patches are of a bright orange colour, occupying the apices of the papillæ, and striated. In the urine, M. Hervieux never noticed the yellow hue, so remarkable in the adult affected with icterus, nor any discoloration of the fæces. M. Hervieux concludes his thesis by deprecating the various methods of treatment hitherto recommended, and advising to abandon to the resources of nature the icterus of infants.

Inflammation limited to the Serous Lining of the Ventricles of the Brain, by Dr. Rilliet, of Geneva.—(From the "Archives" for December.)—A girl, aged ten years and a half, was suddenly seized with violent headache, accompanied with sickness, fever, photophobia, and fear of noise. On the fifth day violent general convulsions occurred, and on the seventh deafness; from that time forward headache, vomiting, and frequent convulsions. On the twenty-first day the pulse became slower and irregular; from the fifty-second day the intellect was gradually weakened, and complete idiocy was established on the sixty-eighth day; weakness of the right side of the body soon was noticed, and death four months after the beginning of the disease. On dissection, the convolutions of the brain were found completely effaced, the envelopes were slightly opaque, and ten ounces of albuminous fluid were extracted from the ventricles. The ventricular lining was gelatinous, thick, and remarkably consistent. This case is considered by the author to have been one of inflammation, limited at first to the ventricular lining, and terminating in chronic hydrocephalus. In order to establish the diagnosis between inflammation of the peripheric envelopes of the cerebrum and ventricular phlogisis, M. Rilliet compares their respective symptoms. Both set in suddenly with headache, vomiting, constipation, and fever. But in peripheric meningitis the intellect is disordered at a very early period; whereas, in ventricular meningitis, it may be preserved until a very advanced stage of the malady. In external meningitis of children above two years of age, convulsions are not a characteristic symptom, They are remarkable in the other form for their precosity, their repetition, and their frequency.

D. M'Carthy, D.M.P.

Gunshot Wound of the Elbow and Forearm.—Mr. Aston Key recently exhibited to the London Pathological Society the forearm of a man who submitted to amputation above the elbow-joint in consequence of disease induced by a stray grape-shot striking him in March, 1845, while on service in India. The shot entered the forearm anteriorly, carrying away a large portion of the ulna, and also apparently implicating the elbow-joint: he was ill eleven months in bed, during which time upwards of thirty pieces of bone came away, and the wound had not healed till two years afterwards. He was admitted as a patient into Guy's Hospital in the month of October last, when he was found to be suffering under a perfect anchylosis of the elbow-joint and superior radio-ulnar articulation. There was a very imperfect motion of the fingers, which, together with the hand, the forearm, and the arm, were much wasted. The hand and fingers had a peculiar purplish-red appearance; the thumb inclined to the palm, and was almost immoveable; there was severe constant pain of the thumb, the index, and second finger, together with numbness on the palmar surfaces, the pain and numbness increasing when the patient was in the open air, and subsiding entirely when he was near a fire; the little and ring finger were devoid of pain, but only partially moveable, and retained perfect sensibility, which was all but absent in the index, middle finger, and thumb; great pain and numbness existed at the back of the elbow-joint, and also from the fingers to the shoulder. The radial pulse was full and strong. In the dissection of the removed limb, the humerus, ulna, and radius were found anchylosed; the internal condyle projected anteriorly, the external posteriorly. The flexor muscles had lost their condyloid attachments, and were connected by fascia principally to the ulna below; they were much smaller than natural; the flexor longus pollicis had become shortened from the injury, and would not allow of the proper extension of the thumb. The median nerve, at a point corresponding to the bend of the elbow, presented a bulbous enlargement, about the size of a pea or small bean, and immediately below it was intimately adherent by processes of thickened fascia to the textures surrounding it, so that for the space of half an inch the nerve apparently consisted of fascia, and could not be distinctly isolated by dissection; below this its appearance was natural. The ulnar nerve was similarly adherent to the cellular tissue surrounding it for the space of an inch, immediately after it emerged from between the two heads of the flexor carpi ulnaris. The entensor muscles had lost part of their attachment to the external condyle.

Malignant Disease of the Clitoris.—Mr. Brooke exhibited to the Pathological Society a specimen of this disease taken from a woman, forty-five years of age, who had been married for nearly twenty years, but had never been pregnant: menstruation had always been regular. For several years preceding any external appearance of the disease, sexual intercourse was followed by pain in the region of the clitoris, which at last became so severe as to compel its discontinuance. About two years since, an excrescence, attached by a pedicle, and about the size of a nut, was removed by ligature from the region of the clitoris; shortly after which, ulceration commenced at or near the point from which the morbid growth had been removed, and had gradually progressed ever since, and, previous to the operation, had involved one of the nymphæ (the other having been apparently eroded) and a considerable portion of both labia, and extended downwards to within three quarters of an inch of the urethra. The patient was placed under the influence of mercury, and subsequently took sarsaparilla with iodide of potassium for several weeks, but without in any degree arresting the progress of the disease. She had latterly suffered from almost incessant pain, which rendered necessary the repeated exhibition of opiates. The pain was much aggravated by the application of escharotics. The removal of the morbid parts by the knife was considered advisable, although one of the inguinal glands was a little enlarged. This was accordingly done, the actual cautery being freely applied to the course of the clitoris, and to every point of the surface that wore a suspicious aspect. Profuse hemorrhage followed from several small vessels, which there was much difficulty in arresting. The operation was much protracted, but the patient was kept under the influence of chloroform for nearly an hour; and, when its exhibition was discontinued, she soon recovered, without any unpleasant symptom. The wound is now perfectly healthy, and nearly healed, and the patient is free from pain.

Famine Fever.—Mr. George Bottomley, in his remarks, in "The Provincial Journal," on the fever among the poor Irish which occurred at Croydon in July last and the two following months, says:—In this fever the complications were those of the head and mucous lining of the intestinal canal. In three patients jaundice occurred, terminating fatally with one of them; and in one or two only was there any tendency to chest affection as a consequence of the fever. The form of fever approached nearly to that known as the 'simple continued,' the 'synochus' of Cullen; but a strong tendency invariably existed towards a termination in one of a low nervous or typhoid type. Keeping this in view, the indications were plain, viz., to be as sparing of antiphlogistic treatment as the case would allow, discarding the use of the lancet altogether. This plan was literally adhered to. Even in the administration of mercury, antimony, and purgative medicines, great care not to be too liberal in the use of depressants was necessary, and to commence the exhibition of nutritious diet, however small the quantity, as soon as the stomach was enabled to perform its functions; while the first tendency to exhaustion was promptly met by stimulants, cautiously and gradually afforded according to the urgency of the symptoms, with strict attention to the cerebral affection, when evidenced by a comatose condition of the patient, insensibility of the pupil, subsultus tendinum, by means of cold

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applications and counter-irritation of every kind. There was not much ground for believing the fever to be infectious, as infection appeared to arise only from the accumulation of cases in one ward, the air becoming so impregnated with noxious effluvium, emanating from their bodies, that those who came in contact with it suffered in a way the same as miasmata would produce arising from any other source; a nd, by separating the patients, the appearance of infection immediately vanished. Those who were suffering from it were distributed indiscriminately among other patients in each ward, as the principle adopted was to divide as much as possible the cases, and not to accumulate them in one apartment. With unremitting attention to ventilation and cleanliness—points of the utmost importance, especially in the treatment of the Irish—little or no danger of infection existed. Had separate wards been devoted to the fever patients alone, the results, doubtless, would have been far less favourable, while under the plan adopted the other patients have not suffered. Two out of six nurses, who were engaged in constant attendance, were attacked, and exhibited the type of disease described in rather a severe form; but this is not surprising, if the very arduous character of their engagements at this period be considered. The number was by no means adequate to the duty; the nightwork was severe, and the daily attendance of a most trying character, owing to the condition of the patients. The nurses had full and stimulating diet, and official visitors took a glass of wine and a biscuit before entering the wards; and not the slightest fever symptom appeared in those brought into contact with the sick. The result would have been much less satisfactory had fever wards been made, and so concentrated the miasmata, which it was the grand object to disperse. The mortality was as under:—

In-door cases 100—Deaths 3
Out-door ,, 79— ,, 1

This very small mortality may be attributed chiefly to the unlimited supply of stimulus and concentrated nutriment, and to the constant attention afforded to the patients.

Manner in which the Chinese Nutgalls are Formed.—Mr. Edward Doubleday stated, at a meeting of the Pharmaceutical Society, that the insect contained in the galls belonged to the family of the Aphidians. When the gall is broken it is found to contain a downy matter of a white appearance, and numerous little rounded dark-brown substances, not bigger than grains of coarse sand. These are the insects which have produced the gall by the puncture of the leaf, and the down is a peculiar white secretion with which the gall-making aphides are covered. Their very dry condition and continued shaking about in the gall detach this down, and break off the legs and antennæ of most of the insects brought under notice. The galls are formed in the following manner:—The first puncture is made upon the upper surface of the leaf by the female aphis; from this wound a cavity is formed by the preternatural expansion of that part immediately around it, which assumes on one side the appearance of a small blister, but on the other has an opening of greater or less dimension. In this sac the insect is lodged, and eventually brings forth its young. Their puncturing the inner surface of this cavity, for the purpose of sucking the fluids which form their food, increases the disease of the leaf, and the swelling goes on increasing, but not at the basal part, and it thus becomes of a bladder-like form, connected to the leaf by a narrow neck. As the bladder extends and thickens, the neck also becomes thickened, but this thickening going on internally only, or at least chiefly, closes the aperture. Here the insects probably live and increase for some time, and only getting so much of the outward air as passes through the compact substance of the gall; ultimately these galls probably burst, and thus allow the insects to escape. This takes place at the period when there is brought forth a winged generation of both sexes. These winged individuals can then fly to other spots and deposit their eggs, which in another year will give birth to a fresh race. This is only a supposition, but rests on the observed habits of other species. It would be very interesting to ascertain the real nature of the shrub on which the galls are found, and the mode in which they are attached, whether it is to the upper or under surface of the leaf, what is their appearance when they have burst, and especially to discover the insect in its winged state.

Imperforate Vagina presenting itself during Labour.—Dr. James Ogden relates, in "The Obstetric Record," the case of a lady who, having been married for ten years, was taken in labour of her first child. When in her nineteenth year she was attended for retention of the menses. An incision was made in the closed vagina, and a tube kept inserted in the opening for a week or two. The opening, however, ultimately closed; after which she regularly menstruated through the passage by which she voided her urine. On a careful examination of the patient, who now suffered severely from labour pains, recurring at short intervals, there was discovered a dense, semicircular, smooth tumour, presenting itself to the touch; and no trace of the organs of generation, nor the slightest appearance of a cul-de-sac, could be discovered, for the labiæ, the nymphæ, and the clitoris were wanting; in fact, there appeared nothing but a flat, hard tumour, about the size of the fœtal head. The pains continued to be extremely violent, accompanied by strong expulsive efforts, creating some degree of exhaustion. An opening of considerable extent was made with a scalpel, as large as the rectum and meatus urinarius would admit of, without injury to the parts. The barrier or intervening substance was fully an inch and a half in thickness. The membranes were unavoidably severed in the operation, and a considerable quantity of water was evacuated. In about an hour after the section had been completed, she gave birth to a stillborn, moderately sized male child, during the expulsion of which, great care was required to prevent laceration. About two years after she became again pregnant, when it was found necessary to open the vagina again with the scalpel, and to extract the fœtus with the vectis. It appears that the gentlemen who attended her prior to her marriage had attempted to open the vagina with a lancet, for retained menses; but, finding the intervening substance so thick, were compelled to resort to the scalpel. After cutting to the depth of an inch and a half, they were much surprised by a gush of water issuing from the wound, and, on opening a little farther, they succeeded in evacuating a quantity of thick grumous blood, and agreed to introduce a canula to keep the opening pervious: this, however, was not retained long; and they supposed the opening closed. The escape of water during the operation could never be accounted for; but now it was supposed that the meatus urinarius, in the upper part of the vagina, must have been opened, and remained pervious; and through this she must have menstruated, and become impregnated. There is no proof that the like ever before occurred, or has been recorded in any book.

Fatal Apoplectic Collapse after Coition and Debauch.—Dr. G. C. Watson relates in "The Obstetric Record" the case of a female, twenty-seven years of age, to whom he was called at midnight, in consequence of being in what was reported a fit—apparently dying. When seen she was lying on a sofa divested of her dress except her chemise, her whole frame passive and motionless, her extremities cold (especially the feet); the features wore an inexpressive look, and she could not be roused out of her stupor. Her feet were *extended* and *incurved* so forcibly that it was with difficulty any degree of flexion of the foot, or of eversion, could be practised; they turned back to their spastic contraction immediately. She frothed at the mouth; her teeth were firmly clenched; the heart's action was feeble. A warm bath was ordered to the feet, brandy exhibited internally, and volatile applications to the nostrils. She, however, never rallied, but died in the course of three hours. It appears she had led for some time past a very debauched life, frequently getting dead drunk; and a week or two before her death had fallen in the streets and hurt her head. The day previously to her death she appeared in her usual health, but depressed in mind in consequence of a young man, who used to cohabit with her, having taken up with some other girl. On the night of her death she had been out, and returned home saying that she felt very ill with something wrong in her head, and vomited a dark brownish liquid mixed with solids. It appears she retired to bed with the young man just referred to, who, supposing that she was only inebriated, had just been in the act of coition with her, when she was seized with the fit. At the *post-mortem* examination the summit of the uterus was found in a normal condition. On tracing it further there were detected signs of increased vascularity, of which the left ovary also partook, being much gorged with blood, as if stained with port wine. The left Fallopian tube was found with its fimbriated extremity grasping this ovary, and required some gentle force to detach it without doing any violence to the integrity of either organ. The os uteri was rather vascular. The left ovary contained a considerable quantity of blood in its substance, being in a congested state, and a cavity filled with a claret-coloured fluid. The right ovary was natural.

Irritability of the Muscles of Paralyzed Limbs.—Dr. Bentley Todd sums up the results of his observations in the following propositions:—1. The contractility or irritability of the muscles of paralyzed limbs bears a direct relation to their state of nutrition. 2. The excitability of the paralyzed muscles to galvanism varies with the condition of their nerves more than with that of the muscles themselves. 3. In the majority of cases of cerebral palsy, the contractility or irritability of the paralyzed muscles is less than those of the sound side, simply because their nutrition is impaired by want of exercise. 4. No diagnostic, to distinguish between cerebral and spinal palsy, can be based on any difference in the irritability of the paralyzed muscles: for the muscles in spinal paralysis exhibit the same states as those in cerebral paralysis. 5. The tendency of strychnine to affect the paralytic limbs before the healthy ones is attributable to its being attracted in greater quantity to the seat of lesion in the brain than to the corresponding part on the other side. 6. The manner in which the muscles of a paralyzed limb respond to the galvanic stimulus assists us in forming an opinion as to the state of its nerves: if they respond feebly, or not at all, the nerves are in a depressed state; if they respond vigorously, more so than the healthy muscle, the nerves are in a state of irritation.

Method of Discovering Iodine in the Urine.—M. Rayer recommends to boil thirty-two ounces of urine down to one ounce. Soak in this residue a strip of starched paper, then rub over it a glass rod, previously dipped in nitric acid, which will produce a blue colour if there be iodine present. In this manner iodine may be detected in the urine of an individual on whom the injection of the tincture had been practised for an hydropic knee. This process is remarkable for its extreme simplicity and readiness of execution. When the iodine is in large proportion, it may be found even without previously evaporating the urine. The process is insufficient when iodine is in feeble quantity.

Spontaneous Aneurism at the Head of the Arm.—M. Velpeau had a patient in whom there was a tumour containing fluid in the above situation. It had no pulsatory movement, and pulsation had never been felt in it since its first appearance, five or six years before. He had no pain in it, and suffered inconvenience only from its limiting the motions of the arm. Several surgeons saw it, but none arrived at the conclusion that the tumour was aneurismal except M. Velpeau. He thought, however, that diminution in the size of the tumour could be produced by

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pressure, and, on introducing an exploratory needle, some arterial blood escaped. A ligature was accordingly placed on the brachial artery, immediately above the tumour, but without the effect of changing in the least the size or condition of the latter. An attempt was afterwards made to obliterate the sac, by producing inflammatory action in its interior, and for this purpose several needles were introduced through it. These were allowed to remain ten days, and when removed the contents of the tumour were still found to be fluid. Compression still diminished the size of the swelling, but pulsation had ceased. It was then determined to lay open the sac, and apply a ligature above and below the opening in the vessel, if such were found to exist. An incision was made, five inches in length, through the tumour, when a cavity was found in the muscular substance, from which, on slackening the tourniquet, dark blood flowed in a continuous stream. Several small bleeding points were tied, but the hemorrhage continued from above. A small sac was found at the upper part of the wound, around the base of which ligatures were applied, and the whole cavity was filled with charpie. The hemorrhage was now entirely arrested; the patient was put to bed, and the limb placed in an elevated position. Two days afterwards there had been no return of the bleeding, but the patient had suffered from epistaxis, and seemed to be in an unsatisfactory condition. This tumour was considered a rarer variety of aneurism, consisting of the presence of a small sac, like a thimble, around an opening in the coats of the artery; and that from this sac the blood exuded or escaped by a direct communication between the large cavity and the interior of the aneurismal sac.

Brandy in Childbirth.—M. Retzius had a patient in labour, in whom the shoulder of the child had been firmly wedged for three days, and, in spite of copious venesection, all attempts to turn proved fruitless. Brandy was now given to the mother till complete intoxication was produced; in two hours afterwards turning was performed without difficulty. The woman recovered perfectly, but lost one of the labia externa from gangrene.

Incision of the Cervix Uteri.—M. Michet proposes an operation in cases of rigidity of the neck—1. In puerperal convulsions, in which the extraction of the fœtus is considered necessary. 2. When serious hemorrhage occurs at the close of pregnancy, and the cervix remains undilatable. 3. In contraction of the pelvis, when it has been ascertained by measurement that the application of the forceps will be necessary, and the cervix does not readily dilate. 4. When the head is separated from the trunk and remains within the uterus, and the rigidity of the cervix will not allow of the introduction of the hand.

Iodide of Lead.—When this preparation is formed by precipitation of acetate of lead by iodide of potassium, a certain quantity of iodide of lead always remains in solution. There is about ten per cent. less of iodide of lead than theoretically ought to be. This is owing to the formation of a double compound, an iodide of lead and potassium remaining in solution. This portion may be thrown down by the addition of a few drops of nitric acid. It is better, however, to prepare it by precipitating iodide of potassium with nitrate of lead.

Royal College of Surgeons.—Mr. Arnott has been elected into the Court of Examiners in the room of the late Mr. Liston.

The cholera has made its appearance in Diarbeker and Orfa, and had visited more or less most of the principal towns in Mesopotamia and Armenia, always advancing in a westerly direction. Three cases of cholera had appeared in Damascus. In Bagdad the cholera had entirely ceased. Two hundred Algerine families have arrived in Damascus to settle there, and were well received by the authorities, as they stated that they preferred living under Mahommedan rule to being subjects of Infidel France.

THE MEDICAL TIMES.

SATURDAY, JANUARY 8, 1848.

DISCOURSES ON THE HEART, BY WARDROP.

Our number for

January 22, 1848,

will contain the first part of an elaborate work by

Mr. Wardrop;

entitled

DISCOURSES

ON THE

NATURE AND TREATMENT

OF THE

DISEASES OF THE HEART,

WITH OBSERVATIONS ON THE

ANATOMY AND PHYSIOLOGY

OF THE

ORGANS OF CIRCULATION.

[the author's announcement.]

"Before entering upon the consideration of the diseases of the heart, and in order to illustrate some important pathological phenomena connected with circulation and respiration, I propose in the present inquiry to draw the attention of the reader to some points in the anatomy of the circulating apparatus, and to certain functions of the heart, which I have on a former occasion endeavoured to point out, and by a knowledge of which I am confident that many disorders, not only of the heart, but of the respiratory and nervous systems, may be satisfactorily explained, and rational principles for their treatment established.

"Jan. 6, 1848." "James Wardrop.

This important work, on whose extreme value to science all commendation is needless, will be published weekly, to the extent of from two to four sheets, and in such a shape that it may be readily separated from the journal and bound into a distinct volume, with its own title-page, index, and paging. It is calculated that this work alone will be worth the whole annual subscription to the journal. Gentlemen wishing to receive this work with punctuality are requested to give their orders immediately to their booksellers, or to forward their orders, with remittances, to our office.

THE POOR-LAW CONVENTION.

The committee met on Wednesday, and had under consideration very important business.

It is understood that the returns made to the committee have extended to about eight hundred, and that subscriptions have been received from a great number of the gentlemen forwarding such returns. It is unnecessary to say that the information thus laid before the committee is of the greatest importance, and must exercise a very useful influence in the application of a remedy. Apart from any result that may be produced on the Government, the Convention has great reason to congratulate itself on the great and favourable change produced in public opinion, and, through it, on many boards of guardians. Since this movement was first publicly originated, increases of salary have taken place in the Holborn Union, in Southwark, in Birmingham, and in Shoreditch, and reports have reached us of similar changes in other districts.

Very recently the board of guardians of the Whitechapel Union voted the sum of £100 to Mr. Byle and Mr. Liddle, their very able medical officers, who are members of a committee of poor-law medical officers; and we hear that the board of guardians of St. George's-in-the-East engaged the services of a medical practitioner at seven guineas a week to attend to the paupers during the illness of one of the medical officers.

At Plymouth, within the last ten days, a coroner's inquest was held on the body of a pauper, in consequence of some alleged neglect of the medical officer. The jury, however, showing the more enlightened views recently made known through the Convention, instead of bringing in the usual stereotyped verdict of neglect by the medical officer, declared that it was not he, but the parsimonious system, that was at fault; and a similar verdict has been found by a jury in Mile-end, the details of the inquest being as follows:—

"Alleged Neglect of a Medical Union Officer.—Before Mr. Baker, at the Bricklayers' Arms, Mile-end Old Town, on view of the body of Thomas Harrington, aged twelve.—The mother said that about five weeks ago she removed from St. George's-in-the-East, where deceased had been attended by Mr. Watt, medical officer of the parish, for scarlet fever and hooping-cough. He recovered from the former. After she came to reside in Thomas-street, she applied to Mr. Watt, who directed her to go to the medical officer of the union she was residing in. She did not do so, as deceased got better, till Saturday last, when she became alarmed at his appearance. She obtained on that morning an order from the relieving overseer for the attendance of the surgeon of the union, Mr. Howlett. At eleven o'clock she saw his assistant, and acquainted him with the urgency of the case. As no one came she went again at five o'clock, when the assistant gave her some medicine, and directed her to come again at nine o'clock. She administered the medicine, and about seven o'clock her child died.—Several of the jury observed that there appeared to be some neglect, and they were of opinion that the inquiry ought to be adjourned.—The coroner remarked that it was very possible that there was no intentional neglect, and that Mr. Howlett was fully engaged in his medical duties.—The foreman said, had there been a sufficient number of medical officers, and properly remunerated, the deceased might have received assistance. He thought that they might embody in their verdict that the opinion of the jury was to that effect.—Verdict, 'That the deceased died a natural death, and the jury are of opinion that a liberal compensation should be afforded to a competent number of medical officers, whose duties are to attend to the poor.'"

THE COLLEGE OF PHYSICIANS AND THEIR DIGNITIES!

Were the ruling powers of this body more zealous in controlling and regulating the conduct of its members, and did they talk less about its dignities, and say less of the flimsy pretences by which they endeavour to sustain their corporate superiority, they would be infinitely better employed, and they would more contribute both to their own interests and to the *moral* character of the College of Physicians.

The disreputable correspondence of Drs. Watson and Williams ought to read the president and his officials a useful lesson, whilst it affords to the profession at large a public test of the discreditable and unjust principles which guide the conduct of the members of that body towards each other. In all those associations where men assemble and congregate together in the various classes of society, whether under the denomination of colleges, companies, corporations, or

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clubs, there are some specific regulations amongst them by which certain fines or other punishments are inflicted on those members whose conduct becomes in any way inconsistent with the character, or hurtful to the well-being, of the body to which they may belong; and it is earnestly to be desired that the College of Physicians would not only enact but put assiduously in force some code of laws, the sole and avowed purpose of which should be to expose and punish such members of their body as shall in any way trespass on the usages of society, and who shall depart from the paths of honour and justice, in their conduct towards their professional brethren. Such a system of legislation would, doubtless, lead to incalculable good: it would not only add to the respectability, or the dignity, if they please so to call it, of the College, but it would be the means of fostering a more kindly and honourable feeling amongst its members towards one another.

There would be a further object—a more extensive benefit—that would arise from the rigorous application of such a code of laws as we have alluded to. The College of Physicians would then hold forth a most praiseworthy example to all the other medical bodies, and thus a system of moral "surveillance" might ere long become universal throughout the medical profession.

To those who, like ourselves, have daily opportunities of seeing the quarrels and bickerings amongst professional men, and the gross injustice that the younger branches of the profession, and those, too, in the more humble walks of it, are constantly exposed to;—to those, we repeat, the practical benefit of such laws would be a great and welcome boon: for with deep regret we acknowledge that it is too much the custom for many, even of those who occupy the highest positions and are in the most lucrative walks, to endeavour to shake the confidence of the sick, and to depreciate the abilities of their former attendants. Nor is it surprising that amongst a body of men whose conduct towards one another can be like that of Drs. Williams and Watson, that their treatment should be of a still more disreputable character of those whom some physicians have contemptuously, but most ungraciously and ungenerously, denominated the "low and ignorant apothecary"!

THE "QUACKLEY" OPERATIONS.

"An Old Practitioner" addresses us in a very full letter on these interesting accessions to surgical science. He enters into a more elaborate scientific scrutiny of these "antiquated barbarities" than they merit, or our readers would hear. He concludes thus:—"Such are the operations, so curious—so unwarranted—and such are the circumstances under which they are paraded to public notice! Alas for us, such are the benefits we are to receive from our protectors! Such the examples that printed authority sanctions! A *liberal* profession, indeed! *Gentlemen*, forsooth! I should be glad for the *recipe* which can secure us for the future such advantages—if the Free-Hospital system and all its detestable vulgarities are in this way to override our old codes of established right and wrong."

"Galen" suggests that there is at least one professional use found for "the bankrupt concern in Gray's Inn-lane:" its practice will henceforth be a constant indication of what honest members of the profession should avoid. "For the thousands and tens of thousands of pounds that folly has misspent on that eleemosynary bubble, we have now at length a show of some return: twenty occupied beds so well looked to that they furnish the papers with a surgeon's daily puff! What a hint for Morrison! What a suggestion for Holloway! Cannot they try their hand on a small scale at something 'Free' and very 'easy'? How it would enhance their advertisements! As to the audacity of the thing—as to the daring profanation of the use of charity—have they not examples enough *in* the profession to keep them in countenance?"

"Lex Scripta" says that we have not done justice to the famous advertisement in our parallel of the barrister's puff. He says that the "extraordinary operations" of the surgeon are advertised with a skill impossible to transfer to any professor of the law, but ventures to suggest, as the nearest thing he can find to it, the following:—

"Forensic Eloquence!—Three hours' speech, in the case of a venerable female moving in high circles, eloquently delivered under the influence of ethereal excitation, by Jacob Buzfuzz, Esq., Jun., Barrister-at-Law, Standing Counsel to the Sham Plea Society! Also four hours' speech in the case of an interesting female, aged seventy-five—under ether inhalation—successfully given forth by Jacob Buzfuzz, Esq.: perfect success of both clients," &c.

Mr. H. F. Ward insists that it is a case which requires the immediate intervention of the Council of the College of Surgeons. They are the guardians of the public morality and honour of the surgical profession; and it is for them to see that no public surgical establishment, however obscure, and no hospital surgeon, however exceptional, be permitted to introduce such frightful practices into a profession that avowedly, at least, cannot afford to tolerate them. He adds, that in a less degree Dr. Innis and his Skin Dispensary have claims to be overhauled. He proposes a memorial to the council from every surgeon who shares his opinion.

"Chirurgus" writes in a similar spirit, adding his expression of alarm at the mischief threatened to the medical practice of the rising generation by the *per fas et nefas* mode of winning notoriety and causing a sensation, especially when the plan is actively countenanced by all the influence possessed by a medical periodical. He thinks that legitimate practitioners ought to "mark by the most emphatic demonstration in their power that there exists between themselves and such empirical attempts the most decided lines of demarcation."

MEDICAL CORPORATIONS AND PROFESSIONAL EDUCATION.—MR. GREEN AT THE HOUSE OF COMMONS.

We consider it our duty to offer a few remarks on the evidence of Mr. Green, given before the Select Committee on Medical Registration, which we this week publish. It is of great importance to the general practitioners, as it still further shows the anomalous position in which they are placed, the danger to which they are exposed, and the opinions entertained in reference to them by those who practise only the pure branches of medicine and surgery. The opinions of Mr. Green are especially important, inasmuch as he is a gentleman of liberal education, and of great intelligence; yet we are compelled to differ from him as regards many of the views which he entertains, and we regret sincerely that the prejudices of his professional position should have biased his judgment in medical politics.

It is evident that the great subject of Medical Reform has remained unsettled to the present moment, in consequence of the difficulties which have arisen in disposing satisfactorily of the class of general practitioners. It is only within the last few years that their numbers, education, and usefulness have brought them into notice, and procured them respect. In days past and gone, they had no well-defined system of education—no barriers to protect them from illiterate empirics, who assumed not only their name, but exercised their functions to the injury of their reputation and of the public health. A legislative enactment, thirty years ago, made them a distinct people, who, like the ancient Hebrews in the land of Egypt, have become renowned and powerful in spite of the most strenuous efforts to keep them down. Their social and professional advancement has been opposed by the most formidable barriers erected by class interests. These mutilated the Apothecaries' Act of 1815 by insisting that the Hall examiners should be chosen from the Company: the education of the general practitioners was thereby periled, as individuals perfectly unacquainted with any branch of medical science might have exercised the responsible office of commissioning individuals to practise the healing art upon her Majesty's subjects throughout England and Wales. The guilt of this iniquitous clause lies at the door of the College of Physicians, who still further insisted that the slavery of a five years' apprenticeship should be endured before a candidate should be permitted to obtain the apothecaries' licence. Nothing short of the most persevering exertions could have averted the evils which such enactments were intended, and were calculated, to produce; and, while we are no friends of the Company as a licensing medical corporation, we must award it a wreath of laurels for its praiseworthy efforts on behalf of medical education.

Yet Mr. Green endeavours to cast opprobrium on the apothecaries for defects in their acts of Parliament which are chargeable upon the physicians, and in the teeth of the profession tells us that the study of anatomy and surgery is interrupted by the preparation necessary for the examination before the Society of Apothecaries. If we may take experience for a guide, we are led to the conclusion that Mr. Green's college has been less disposed to compel the mass of students to cultivate diligently the aforesaid sciences than the Company, for, if we mistake not, it set Surgeons' College the example of requiring an increased amount of anatomical knowledge by more attention to dissections than was formerly demanded of young men attending the medical schools.

We admit the justness of Mr. Green's remarks in reference to apothecary apprenticeship and apothecary examinations, though they come with a very ill grace from the member of another licensing medical body which has done all in its power to force the sale of its diploma for the twofold purpose of replenishing its funds and of benefiting the *members of the corporation*. Let us not be mistaken in the term just employed—a member of the college is not a member of the corporation, the former being destitute of all privileges, while the latter is made a partaker of the honours and emoluments of the institution.

Mr. Green's remarks in reference to apprenticeship are good: he says, "I do not see the advantage of it; on the contrary, I see many disadvantages, as regards the education of professional men; if you could always secure a

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master who could teach, and who would teach, it might have its advantages; but the facts are so notoriously opposed to that, that one cannot but wish the apprenticeship clause done away with. The dedication of five precious years taken from the time of study to the compounding of drugs is an unreasonable period; but even then they do not seem to learn pharmacy, at least they do not acquire an adequate knowledge of the materia medica; they may know how to make up a draught, but they do not obtain a scientific knowledge of pharmacy; as regards this, the five years are thrown away." These are truths which few will be disposed to controvert; and the observations in reference to the Court of Examiners are equally important. The witness says, "If you will allow me to refer to the constitution of the examining court, there seems to be no adequate provision for examination by those best qualified for the office. The examination in medicine would best devolve on those who have made its science their especial object, and the examinations in chemistry and pharmacy should be conducted by those persons who have made the sciences of chemistry and pharmacy their study. Now, a general practitioner, merely as such, cannot be supposed to have made chemistry and pharmacy the objects of special and scientific study; he, for the most part, and especially a member of the Apothecaries' Company, buys his compounds already prepared."

If the Court of Examiners, of which Mr. Green is a member, had always manifested a concern for the education of medical students, and had invariably instituted an intelligent and searching examination whenever a candidate presented himself for the diploma, these statements of a college advocate would have exercised no small influence amongst the members of the profession; but what has the Lincoln's Inn corporation done for medical education, or for the social improvement of general practitioners? We answer, from Mr. Green's own showing, scarcely anything. "The examination," he says, "as now conducted by myself and colleagues, is stricter than it was when I was admitted a member: the standard has been rather raised than lowered." Rather is a term of comparison which shows but a slight shade of difference; and what has occurred within a very short time proves that, if the examinations are stricter than they were, they are far removed from anything like perfection. Nor does the College of Surgeons wish to improve either its *curriculum* or its examination, as regards those whose only ambition is to obtain a member's diploma. The excuse made is, that a race of general practitioners, highly educated, would not suit the wants of the people, while it would be one of the most powerful means of promoting quackery. The learned surgeon of St. Thomas's must certainly not have been in earnest when he gave utterance to this sentiment, or he must have indulged in a certain figure of speech by which one thing is put for another—the wants of the people meaning those of pure surgeons—for in proportion as general practitioners receive a good professional education, will the public not require the services of the "pures" of medicine and surgery. A love of gain has influenced the two London colleges in all their proceedings: it shackled the associated surgeon-apothecaries in their movements prior to 1815; it has made the council in Lincoln's Inn-fields so insensible to shame as to send forth into the commonwealth of medicine men who, according to Sir James Clark, "could not spell very common words in their native language;" it has prompted the same official body to seek a new charter for their college; it has excited Mr. Lawrence to insult the members by the opprobrious epithet of "geese"; and it is still in operation to the detriment of medical education and the enfranchisement of general practitioners.

To this latter circumstance Mr. Green has adverted in his evidence, now under consideration, where he says, "The council of the College of Surgeons are elected entirely by the fellows. I should hardly say that there is a feeling among the profession, there is among the general practitioners, that the council ought to be elected by the whole body of members. The election then would be with persons who do not make surgery their exclusive study; and other interests would be involved in the election than those which are essential to the promotion of the science of surgery. You would have then electors who were not properly qualified, by reason of their not making surgery their exclusive study." This, then, should be sufficient to teach the members that they will be for ever excluded from corporate privileges in Lincoln's Inn-fields. It is not a college of general practitioners, but of pure surgeons; and the ordinary diploma is nothing more than a mercantile commodity forced upon a certain class of the profession, in order that the college funds may be augmented.

The evidence of Mr. Green shows in a very strong light the necessity of an immediate incorporation of general practitioners, if they are to make further advances in knowledge and respectability. The College of Surgeons has utterly rejected them; it has resolved that their education shall be of as an inferior a character as is compatible with the safety of the public; and it is using every effort to wrest from the Society of Apothecaries all that is valuable in the Act of 1815. In a new college, examiners in the various branches of medical science may be appointed such as Mr. Green himself will approve, and which will obviate the necessity of compelling general practitioners to undergo *four* examinations before as many different courts prior to their being allowed to practise. In a new college the principle of popular elections may be safely attempted—the electors becoming such in consequence "of not making surgery their exclusive study;" and here the experiment may be tried, how far quackery can be suppressed by raising the standard of medical education. It is evident that reform, to be permanent, should have connected with it the incorporation of general practitioners—their honour, respectability, and usefulness require it, and they have power to accomplish it.

PROFESSIONAL SQUABBLES AT THE GREENOCK INFIRMARY.

The Greenock Infirmary, like some of her sister institutions in the southern part of this island, has obtained an unenviable notoriety within the last few weeks, in consequence of a misunderstanding between two of the medical officers, and the sudden death of a patient admitted into the hospital with a compound dislocation of the knee and other injuries. These two circumstances the public, by a process of reasoning in which it is very prone to indulge, has coupled together, and the conclusion drawn is, that, if the doctors had not disagreed, the man had not departed this life in so precipitate a manner. It is a well-known fact that the poorer members of the community look with great suspicion on the charity of eleemosynary institutions, and there is a dread of entering hospitals in cases of sickness or accident which nothing but sheer necessity overcomes. This feeling has been produced from the idea that either they will not receive all the attention which their cases demand, or that they will be made the subjects of experiments, and, should they die, that their bodies will be dissected. The occasional derelictions of duty which have occurred in hospitals, and the unwillingness of governors to hold the scales of justice with an even hand, have not only increased the dread of the poor to enter these institutions, but, in case of any supposed injustice, have induced them to pass a very severe judgment upon the offenders.

The Greenock Hospital appears, from the statement of the governors, to have been in the happy enjoyment of the public confidence, till a man of the name of John O'Neil was admitted, on the 12th of November last. He had met with an accident at the new harbour, and his employer, not being able to procure immediate medical assistance, sent him to the infirmary. At the time of his admission, Mr. Arch. F. Richmond was the medical officer in charge of the wards. While going his rounds through the hospital, the man O'Neil was brought in, and Dr. Speirs entered the ward in which Mr. Richmond was, and mentioned the circumstance. Shortly afterwards the patient was carried up and placed on a bed, and, according to the statement of Mr. Richmond, Dr. Speirs resolved to take the entire charge of the case to himself.

When the patient was admitted he had a pale, anxious look, complained of want of breath, and called loudly to be raised up when in a recumbent position. Mr. Richmond, considering that it was his duty to examine the case, commenced doing so, when he was interrupted by Dr. Speirs, who, with the assistance of the house-surgeon, endeavoured to reduce the dislocated joint by powerful extension of the limb. Tartar emetic was then administered, to the amount of five or six grains, according to the testimony of some of the witnesses, and the man removed to the operating theatre. Here pulleys were brought in requisition, and ether administered by means of a sponge. Mr. Richmond, supposing that he was to be excluded from the management of the case, in the meantime left the infirmary in company with Dr. M'Gowan. On the evening of the same day, at six o'clock, the patient expired. On the following morning a *post-mortem* examination was instituted (without the consent of the friends of the deceased), when it was discovered, on making incisions over the knee, that great effusion of blood had taken place under the skin, that the ligaments were extensively lacerated, and that a portion of the bone had been fractured. On examining the chest three ribs were found to be fractured on the right side, one of them slightly protruding into the cavity, but no effusion of blood had taken place. The left collar-bone was also found broken, and *crepitus* indicated lesion of the scapula on the opposite side; but no incision was made for the purpose of examination.

It is evident that this misunderstanding between two of the medical officers of the infirmary was anything but advantageous to the unfortunate patient, as it appears he died without the full extent of the injuries he had expeienced being discovered: for we hear of no means employed to set the fractured clavicle or to remedy the injuries which the bones of the chest had sustained. How far the exhibition of tartar emetic was indicated, Dr. Speirs is perhaps the best judge; but we should think that the administration of ether, where three of the ribs were

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fractured, and the end of one projecting into the cavity of the chest, would have been as well dispensed with.

Dr. Speirs is singularly unfortunate in thus having taken the charge of a case which so very soon ended fatally, for he has not only incurred the charge of a breach of professional etiquette, but has involved himself in a paper war with the local newspapers, and brought down upon himself the displeasure of the patient's friends, the committee of the infirmary being his principal supportes in the painful controversy.

But that which has given further offence to the public is, that the body should have been examined without the permission of the relatives of the deceased. The *Renfrewshire Advertiser* has the following remarks upon this part of the affair:—"The institution can never enjoy public confidence until some precise understanding exists, that the bodies of patients will not be violated without the express concurrence of the relatives. In the finding of the managers, which is quite a curiosity in its way, and on which a very instructive running commentary might be made, did we feel so inclined, the matter is not even alluded to. That finding is a virtual sanction and approval of all that has been done; and no one has, therefore, any guarantee that a better system will be carried out in future. For anything we know, relatives are still to have their feelings outraged by the mutilation of the bodies of their deceased friends. For aught we can ascertain, there is still to be carried forward the same utter disregard of feeling, the same harrowing species of inflictions, as we and the public complain of in this case. The public have a right to demand that no dissection shall take place without the express concurrence and sanction of the relatives of the deceased. Indeed, if we mistake not, there is an act of Parliament which imposes a penalty of £50 in such cases of unauthorized procedure as that at present under consideration."

Now, while we must condemn the strong terms employed by the editor to designate *post-mortem* examinations—such as violating the body, mutilation of the bodies, harrowing species of inflictions—by which the minds of the poorer classes may be more strongly prejudiced against an act which is performed not to gratify a morbid curiosity, but to promote the interests of science and humanity, we think that, in the present instance, there was not that prudence exercised which ought to have been. The law gives the friends of deceased persons power over their bodies, so as to permit or disallow an autopsy, except when a magistrate interferes. To invade this right is neither prudent nor proper, under present circumstances, on the part of the medical officers of public institutions, as it is calculated to increase, as much as the harsh terms of which we have just complained, the prejudices of the poor classes against hospitals and opening the bodies of the dead. Taking the case in all its bearings, we must confess that it is one calculated to damage the good name of the infirmary, and to reflect no credit upon those who had the management of the patient. The misunderstanding of Mr. Richmond and Dr. Speirs evidently prevented that close examination which was requisite, in order to ascertain the full extent of the injury which had been received: Dr. Speirs stating in his evidence before the house-committee, "That, as far as he was aware, the deceased did not appear to have sustained any injury sufficient to account for the patient's death, which had taken place somewhat unexpectedly; and that the next day, when he had assisted at the *post-mortem* examination, the appearance presented by the body, on being opened, satisfactorily accounted for the suddenness of the deceased's death."

The hospitals of our country are certainly becoming peculiarly renowned: Leicester for its perfection—Norwich for its dirt—Gloucester for its surgery—and Greenock for its melancholy squabbles. A few more instances such as these will cause a complaint, under which the Westminster is at present labouring, to become general amongst them—want of funds.

INSANITY AND CRIME—CASE OF THE BOY ALLNUTT.

The case of the boy Allnutt, who destroyed his grandfather by poison, has been the subject of much consideration amongst the members of the medical profession who especially interest themselves on the subject of insanity. We have received two communications from Dr. Duesbury, one of the medical witnesses examined on the trial, who, from the opinions he expressed in reference to the criminal's condition, was subjected to some severe remarks from the judge who presided, and subsequently from the editor of the *Times*. We have considered it our duty, therefore, to turn our attention to the subject, and have examined closely into the bearings of the case, in order that we may form as correct an opinion as possible on a matter so highly important to individuals and to society.

That even intelligent persons are very ignorant on the subject of insanity is evident from the observations made by the judge and counsel at the trial referred to, and it will require much effort on the part of medical men to effect such a change in the criminal law of insanity as shall make it more in accordance with the advanced condition of society and the claims of humanity. We are compelled to acknowledge, however, that, as regards Allnutt, the proofs of *moral* insanity were so vague that unprejudiced persons could hardly expect they would make such an impression upon the minds of judge and jury as to ensure an acquittal. Even in the minds of those who have a considerable knowledge of mental disease there is a diversity of opinion as regards this boy, and it can hardly be expected that non-medical persons should be biased by doctrines which to them are not only new, but hard to be understood.

The great end for which laws are enacted is the good of the community, and this can only be accomplished by administering such an amount of justice to culprits as shall restrain them, so far as possible, from perpetrating crime hereafter. If the plea of insanity were to be lightly admitted, the trial of a culprit would only be a mockery of justice, and the foundations of society would, consequently, be undermined. Persons with moral feelings anything but sane would exercise without restraint morbid propensities which at one time might exhibit an irresistible desire to appropriate to their own use the property of others—at another to effect the destruction of human life.

While, however, judges, council, and jurymen may be unable to appreciate the scientific conclusions of medical men in reference to insanity, they ought certainly to abstain from attributing unworthy motives to them; and the press should be especially careful not to lend itself to anything calculated to damage, prejudice, or evade the real question by an attempt to make ridicule the test of truth, and to excite groundless fears in the public mind.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Joseph Henry Green, Esq., F.R.S., called in and Examined.)

Professional Titles.—I am a member of the College of Surgeons and one of the council; I have been one of the council for ten years, and a member of the college about thirty years. I have ceased to practise generally, but I still continue to be surgeon of St. Thomas's Hospital. I have been one of the surgeons of St. Thomas's Hospital about twenty-five years. My connection with St. Thomas's Hospital has enabled me to watch the progress of students in general in the acquirement of the knowledge of their profession, for I have been occupied in teaching during the whole of that time, and indeed longer, for upwards of thirty years; I began to be a teacher before I was a member of the college. I have been engaged, therefore, instructing the surgical youth upwards of thirty years. I am now one of the council of King's College; I was professor of surgery there.

Opportunities for observing the Progress of Students.—My connection with those two institutions has given me opportunities of observing the progress, or otherwise, generally made by youths studying surgery within the last thirty years. I should fear that their proficiency as a body has been rather retrograde in respect of those particular branches which I have taught, anatomy and surgery. Those two branches are the cardinal points in the science of surgery, certainly. I ascribe this retrograde movement to a greater demand being made upon the time of the young men by the system of instruction, which requires attendance upon a greater number of lectures, and attention to be given to a greater number of subjects, than formerly. A great many of the young men are destined for general practice in the country; and for that general practice, according to law, it is necessary that they should obtain a licence from the Apothecaries' Company. Therefore, in preparing themselves for general practice, they not only study anatomy and surgery under me, but they study those subjects which it is necessary that they should learn, with a view to preparing themselves for examination before the Society of Apothecaries. The examination before the Society of Apothecaries enters into other subjects than anatomy and surgery. It is necessary that the young men should prepare themselves for examination upon the subjects of the practice of medicine, materia medica, medical jurisprudence, botany, chemistry, and midwifery, which are inconsistent with the devotion of their time to the study of surgery and anatomy. Those are the various subjects into which the examiners of the Society of Apothecaries enter. I believe the preparation for the examination before the Society of Apothecaries does not prevent the students attending the lectures which are prescribed by the college; but I apprehend it interferes with their time for dissection, and for attending the practice of hospitals.

Grinding.—My observation would lead me to infer, that this preparation for examination before the Society of Apothecaries interferes materially with their study of surgery, and the acquirement of superior attainments in that science; the effect which we find (I think I may say "we," as one of the examiners of the College of Surgeons) is, that those young men are obliged to qualify themselves by means of what is commonly called grinding, getting their information by rote instead of acquiring it by inspection of the dead body, and by attending the cases in the hospitals. That preparation by grinding applies equally to the examination before the College of Surgeons as to the examination before the Society of Apothecaries; my observation was directed to that; I apprehend that they could not get up the information that is required by the Society of Apothecaries without grinding, the information required being so various and extensive. There is a difficulty in

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saying that the subjects are more various than it is really necessary for general practitioners to study; but I am afraid that if the public, as they do, require practitioners who can only be paid at a moderate rate, they must content themselves with something lower in the scale of education. A knowledge of all those subjects is no doubt required for a full knowledge of the medical profession; but formerly many of those subjects were left for the students to acquire a knowledge of during their apprenticeship, or as they might acquire a knowledge of them afterwards in practice. I dare say they were not very scientifically informed upon those subjects; but with respect to the ordinary cases, generally met with in the practice of medicine, they were probably competent enough. Formerly, when the young men came to London they devoted themselves especially to anatomy and surgery. When I first taught at St. Thomas's Hospital a great number of the students did not attend to the practice of medicine at the hospital at all; and many of them did not even attend the lectures upon the practice of medicine and kindred subjects. Their exclusive attention to anatomy and surgery being now interrupted by the preparation for that extensive examination before the Society of Apothecaries, in my opinion, the acquirement of surgical knowledge on the part of young students has been materially diminished. I have mentioned grinding as preparatory to the examination before the College of Surgeons; I am now an examiner of the College of Surgeons, and by examination we can detect grinding, and imperfect knowledge based upon grinding, to a very considerable extent. We consider it our duty to check that system by the course of examination in the College of Surgeons. I do not know whether the examiners on the part of the Society of Apothecaries are public teachers, but I believe that they are limited in their selection of examiners, and that, therefore, they are not capable of choosing those who may be best fitted for the office.

Unsound Knowledge, by whom detected.—I apprehend that no other persons than those accustomed to teach have the power of detecting unsound knowledge from grinding. It is part of the business of a teacher to be constantly examining, with the cases of disease, the dead body, or whatever the subject may be, before him. We do not, in examining for admission to membership of the College of Surgeons, test surgical skill by actual dissection; the only practical part of the examination is that of having the bones before us, but which assist very much in examining as to the knowledge of anatomy.

Examination of Members.—I have been examiner only about twelve months. The examination as now conducted by myself and colleagues is stricter than it was when I was admitted a member, and underwent examination — considerably so. Therefore, unless it were for this interruption of the study of surgery and anatomy which I have described, from the interference with it by the preparation necessary for the examination before the Society of Apothecaries, so far as it depends upon the College of Surgeons the standard has been rather raised than lowered; the students too are impressed with that opinion, that the examinations for membership are much stricter than they were formerly. I cannot speak from my own experience, but only from the information I have obtained among the students; but I believe the examinations are now more strict and searching than they have ever been.

Examination of Fellows.—Passing from the examination for membership to the examination for fellowship, that examination is a stringent and efficient one: there dissection is introduced into the examination and operations. Grinding cannot prepare for that examination, as regards the practical part of it. I think one must concede to physiology the rank of being the highest, but anatomy is the foundation of medical science. The examination does not extend now beyond physiology, nor does it branch into general literature and general acquirements; it will do so in the year 1850. Notice has been given that, after that year, mathematics, the demonstrative sciences, and general literature, and those acquirements which are necessary for the bachelor's degree at the universities, will form part of the examination for the fellowship. I examine for fellowship as well as for membership. The institution has been somewhat recent, but I think, taking it on the whole, that as many have come up already as might have been expected; and it has not only excited emulation amongst the young, but likewise among the older men; we have had many members of long standing who have come up for examination for the fellowship. From what passes under my own eye among the young men at St. Thomas's, I think I can hardly say generally that they look forward to standing out, when they attain the age of twenty-five, for the fellowship; and that at an early period of study they look forward to preparing themselves for that honour; but I have met with many instances of men who have so determined. I can venture to say quite affirmatively, on the whole, that the institution of the fellowship has acted, and will act, as a stimulus to the acquirement of greater surgical skill. I approve of the amended charter of the College of Surgeons; it is a very great improvement upon the old one in respect of the institution of fellows especially. I did not entertain the general opinion with respect to the mischief of what has been, mistakenly, called self-election; I had no objection to that; but I think that the establishment of a higher grade is an unmitigated good; that it is calculated to be of great benefit to the profession and the public. I mean the distinction between fellows and members. I do not think it invidious, but useful, as far as the members of the profession are concerned.

A Single Faculty.—That being my opinion with respect to the members of the college, that classes are not invidious but useful, I am not favourable to a single faculty in the whole profession—certainly not.

The Registration Bill.—And I would not approve of any system of registration which had a tendency to favour or produce a single faculty. I should think it would be a great misfortune to the profession and the public. I have seen the bill which has been introduced this session into the House of Commons for the amendment of the law regulating the practice of medicine and surgery in England. The tendency of that bill is to produce a single faculty. My understanding of it is that that was its object. Looking at it calmly and dispassionately, taking it with its various clauses and provisions, such is its tendency.

The College Petition against it.—I am aware that the College of Surgeons have petitioned against that bill. I have seen that petition. I know the objections which are urged in detail against the bill. It was a petition, I believe, of the president and vice-presidents, but afterwards read to us, and approved of in the council. It was read in my presence. I entirely adopt the objections to the bill stated in the petition. The president here has stated those objections in detail; the petition has been read in my presence, and adopted by the council. I concur in those objections entirely. The petition was read at a meeting of the council. I think there were not any dissentients from that petition. There were some dissentients as to the form; there were some objections made upon the ground that the president had not called together the council sufficiently early after he had presented the petition, in order to approve of what he had done: but I do not think that there was anybody who disapproved of the substance of the petition. I recollect one observation that was made, and that was that something ought to have been stated in the petition with respect to the approval of the principle of registration, and that was entirely concurred in.

Opinion on Registration.—I myself approve of registration, properly framed, and under competent authority. I do not think that the registration under this bill is a registration such as ought to be the standard registration for England, because it does not sufficiently inform the public what the qualifications of the persons registered are. I have seen the register. My opinion is, that there should be a register setting forth in classes the qualifications of the persons registered. I have said that I do not think that amongst surgeons in our college the distinction of fellows and members is invidious, but that it is useful. With respect to the term "invidious," I suppose there are many persons who would dislike the distinction, because there are certainly many people who are now exclaiming against any distinctions; they wish for only one faculty; therefore I suppose to those it would be invidious; but I do not apprehend it could be properly considered invidious, or that they could make any real objection to it. I cannot think that what is only stated as a ground of complaint, without sufficient reason, can be called essentially and properly invidious; therefore I use the expression with this reservation. And, with respect to the subdivision into classes of physicians, surgeons, and apothecaries, or general practitioners, I should say such a classification would not be invidious, but useful to the whole profession. A counsellor with a stuff gown may rather regret that he has not a silk gown, or a solicitor may regret that he is not a barrister, but yet such subdivision may be very useful both for the profession and the public. I see an analogy of that kind in the case of our profession; and it is especially useful, as provision is made for every one rising into the upper ranks if he so pleases, and exerts himself for that purpose. I see an advantage in the postponement until the age of twenty-five of the qualification for the fellowship. It gives an opportunity for a more extended education, and this not only with respect to what is strictly professional, but likewise with respect to what I believe is equally necessary as the groundwork, a preliminary liberal education. If classification have the effect of promoting emulation in the profession, and emulation lead to distinction tested by excellence, that is an advantage both to the dignity and honours of the profession, and also to the safety of the public.

Tendency of the Bill.—I think that the bill which is now before us has a tendency to the introduction of a single faculty, so it appears to me; but, more than that, it appears to me very likely to diminish very seriously, and very dangerously to the public, the education of medical men. As no benefit would be derived from a higher qualification on the register, they would naturally seek the cheapest schools, and it is very likely to produce a rivalry among the schools for affording medical education at the cheapest rate and in the shortest time, and that must necessarily induce a lower professional standard of education.

Penalties.—There are certain reservations with respect to poor-law unions and prisons, but otherwise there is no restriction now to prevent any man practising surgery in England; submitting to examination for the membership and fellowship of the college is a perfectly voluntary act on the part of those who seek them. That it would be desirable, by penalty, to check practice without qualification, or that it would be more expedient to induce, by encouragement, the possession of qualification, is a very difficult question to decide; but I am disposed very much, if it be possible, to make some legal penalty against unqualified persons practising. The Apothecaries' Act is founded upon that principle, and also the exclusive right of the College of Physicians; that principle has not been found effectual under either of those acts. There is a difficulty in applying the efficacy of the principle of penalties; but still the fact of a person doing an illegal act affixes to him a certain stigma, and the College of Physicians and the Society of Apothecaries have, I think, been deterred, from other causes than from the want of power, from putting the law into execution; the College of Physicians, I think, found that no

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juries would convict. That indicates that public opinion is rather opposed to proceeding by penalty in those cases. It is one thing so to act in violation of the law, and another to pass a law which shall legalize practice without such qualification. They are two very different things. It is my opinion of this bill which we are now considering, that it would legalize general practice without any adequte qualification.

No Securities for Good Education.—I have looked at the securities which this bill affords for the test of adequate qualification, as contained in clauses which make the curricula of the licensing bodies subject to the sanction of the Secretary of State or the Queen in Council, and examinations under those curricula to be tested by inspectors in different parts of the United Kingdom. Those provisions appear to me to be not only not adequate, but not calculated in the least to answer their purpose. The examining bodies have been appointed as those best qualified for their office, and the inspectors, if appointed by the Queen in Council or the Secretary of State for the Home Department, may or may not be persons qualified, and they may not know anything about the subject which they are to inspect. I have no great faith in the medical knowledge of Secretaries of State or Presidents of the Council, and, as they would have to choose the inspectors, I presume that I can have as little confidence in those inspectors. I have not considered that the pressure would be very great upon those inspectors, in Scotland or Ireland, to favour particular licensing bodies, or to act with greater severity towards others; or, at all events, that the suspicion of favour would be very great.

Council of Health. — While I am not satisfied with the provision respecting the exclusive power vested in the Secretary of State or the Queen in Council, as the case may be, as proposed by this bill, another central authority has occurred to me as advisable, to which control of the whole scheme of registration might be intrusted, such as a Council of Health. I would view such an institution with favour, certainly. If it were composed partly of medical men from different parts of the United Kingdom, and partly of laymen of distinction, that body, in my opinion, would be a useful body for other purposes besides the direction of medical education, and ascertaining that the standard then fixed was duly observed by examination; the want of such a body appears to me to be a defect in our civil polity. I think that a Council of Health sitting in the metropolis might perform both functions; that it might control the medical education required by the different licensing bodies, and that it might also aid the Government by its advice upon great emergencies affecting the health of the people. I think the combined operation might be intrusted to such a body. I would prefer creating such a body, for the purposes of this bill, to the control proposed by this bill to be vested in the Queen in Council or the Secretary of State.

Equality of Privilege.—If this bill passed, with the provisions, such as they are, with regard to the standard of education, and the examinations under that standard as controlled by inspectors, the effect, in my opinion, of admitting to an equality of practice in England and Wales, Scotch and Irish practitioners, would be very detrimental, in the first place, to the interests of general practitioners, and I had always supposed that that was the cause of the main cry for medical reform; and I apprehend that very badly qualified persons may come from some of the schools there. So far from equality of privilege, so granted with restraints only such as are proposed to be provided under this bill, giving security to public health by having well-qualified medical advisers, my fears would be the other way.

Imperfections in the College Charter.—I think that the charter of the College of Surgeons, if undisturbed, will work well. The only mistake, I think, that was made was the nomination of too large a number of fellows in the first instance. That was done once for all, and not to be repeated. That defect will in lapse of time disappear necessarily. I do not object to an unlimited number of fellows admissible by examination.

Apothecaries' Apprenticeship. — Apprenticeship under the Apothecaries' Act I do not see the advantage of; on the contrary, I see many disadvantages as regards the education of professional men; if you could always secure a master who could teach, and who would teach, it might have its advantages; but the facts are so notoriously opposed to that, that one cannot but wish to see the apprenticeship clause done away with. The dedication of five precious years taken from the time of study to the compounding of drugs is an unreasonable period; but even then they do not seem to learn pharmacy, at least they do not acquire an adequate knowledge of the materia medica; they may know how to make up a draught, but they do not obtain a scientific knowledge of pharmacy. As regards learning pharmacy, the five years are thrown away. I have expressed an opinion that practically the examination by the Apothecaries' Company interferes very seriously with the study of surgery.

The Apothecaries' Examiners.—And in that sense I would not approve of the Apothecaries' Act; but, if you will allow me to refer to the constitution of the examining court, there seems to be no adequate provision for examination by those best qualified for the office. The examination on medicine would best devolve on those who have made its science their especial object, and the examinations in chemistry and pharmacy should be conducted by those persons who have made the science of chemistry and pharmacy their study. Now, a general practitioner, merely as such, cannot be supposed to have made chemistry and pharmacy the objects of special and scientific study; he, for the most part, and especially a member of the Apothecaries' Company, buys his compounds already prepared. There is not that I am aware of any penalty for assuming the designation of a member of the College of Surgeons. I propose that the College of Physicians should examine the general practitioners in medicine. The examination of the Society of Apothecaries should not be confined to pharmacy and chemistry. I do not think that they are persons fitted to examine in pharmacy and chemistry. I would propose another body. They are not by profession what the French call *pharmaciens*, or pharmaceutical chemists. It must be a board composed of persons who have especially made those subjects their study; we have no such body in the profession that I know of; but I did not wish at all to convey the idea that the Society of Apothecaries had not been of very considerable benefit to the profession. Care must be taken not to render the education of general practitioners too expensive. I propose that the College of Physicians should examine them in medicine, some other body in pharmacy and chemistry, and the College of Surgeons in surgery; and it would be very essential likewise that another body should examine them in midwifery, that body being composed of professed accoucheurs. That branch could not be brought within the province of the College of Surgeons; it does not belong properly or entirely to surgery; but you have here in London a much better opportunity of forming such a body by taking physicians and surgeons who practise in midwifery. That would make four examinations.

Election of the College Council.—The council of the College of Surgeons are elected entirely by the fellows. I should hardly say that there is a feeling among the profession—there is among the general practitioners—that the council ought to be elected by the whole body of members; the election then would be with persons who do not make surgery their exclusive study; and other interests would become involved in the election than those which are essential to the promotion of the science of surgery. If any one was to compare the whole body of members of the College of Surgeons to the masters of arts of the two Universities of Oxford and Cambridge, as proper constituents to govern and control the bodies, I do not know what distinction should be drawn between the two. because I do not know exactly the extent of the functions of masters of arts in respect to their elective powers. I have said before that you would have then electors who were not properly qualified, by reason of their not making surgery their exclusive study; and then the next objection is, that the election by the whole body of members is really almost impossible; they could not come up to London for the purpose. If our council were elected by the whole body of general practitioners, I have considerable faith in the good sense of the profession, and I do not know, therefore, that the result would be very different. The more sensible of the general practitioners who are members of our college are dissatisfied with the present arrangement. The complaints have been very loud, and, indeed, there has been an association for promoting medical reform; but the objections that have arisen seem to me to have originated in a mistaken view, that scientific bodies were to be guided by exactly the same principles as governments, and that it was to be a representative body, to whom the interests of science were to be confided. Now, that does not apply at all. The principle of popular election and representation may be rightly applied to municipal corporations and commercial companies; but the peculiar character of colleges of learning and science is the selection of those who are best fitted to promote learning and science.

Education of Surgeons.—I think it desirable that surgeons, or a certain number of the most eminent surgeons, should receive their education together with the more eminent members of the law and the church, and the gentry of the country, at the universities. I do not think that there is anything in the nature of the occupations of a surgeon which would make a university education a bad preparation for his professional avocations. On the contrary, I should think it would be of great service to him, in disciplining his mind even for his professional studies, without any ulterior views; without considering the man, only considering the surgeon. I cannot point out any distinction between the mode in which a man who is aiming at the higher and more scientific position in his profession pursues his studies, and that in which a man who is only seeking for general practice pursues them. I should think the principle to which they must both advert would be the same; but it is the misfortune of a person who cannot aim at the higher rank in his profession, that he cannot have his mind so opened, invigorated, and disciplined by preliminary education as to obtain the advantages which the other obtains; but still the profession, I take it, must be studied upon the same principle, and with the same views. For example, if you take, as it has been frequently my lot to see, a young man who has come from an apprenticeship of five years, and compare him with one who has been at the university, who has merely taken his first degree in medicine, both of them young men, and nearly of the same age, you will find that it is with the greatest difficulty that the one who has been apprenticed in the ordinary way to a country practitioner acquires information: he has no power of observing and generalizing; in many instances he cannot spell, and cannot put down his thoughts in writing; in short, he evidences in every way great imperfection of mental development, whilst the young man who has come from the university gains more perhaps in a couple of years than the other would if he were at the hospital for ten years. The students for general practice are obliged to study too many subjects at once under the present system of examination. They come unprepared in point of mind, and the whole of the information has to be poured in at once. They are over-lectured. There is not any other sug-

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gestion that I would wish to make for the improvement of medical education at present. The subject requires much consideration. It is of importance that a surgeon should have a rather extensive medical knowledge. Persons, previous to receiving the diploma of the Royal College of Surgeons, are not examined on medical subjects; they are examined on surgery; but there is a regulation by which they must produce a testimonial or certificate of having attended a course of lectures on the practice of medicine and the practice of an hospital. I think it would be desirable that no person should be allowed to practise as a surgeon till he had acquired a certain amount of medical information. I think it would be an improvement in the education of the surgeon. In fact the observation might be extended, that no person ought to be allowed to practise in the profession until he had obtained a considerable acquaintance with all the principal branches of it. There is no probability of the College of Surgeons adding that medical examination to their present examination; we have no means of doing it, unless we sent the candidates to the College of Physicians, which I should be perfectly willing to do. And the College of Physicians might send their pupils or students to us; it would be very useful. It is the practice of many diligent students who become physicians to take the post of dressers to surgeons.

Professional Trading.—I have expressed in print a very strong opinion that the medical profession should be as far as possible removed from anything that should give it the character of a trade. I doubt whether it would be possible to carry it so far as to make it a regulation that general practitioners should not sell drugs; it may be left to their good feeling and to the improvement which may be hoped for by raising the standard of education; but in the country it would be quite impossible for them not to keep their own drugs; and I take it that their patients derive advantage from it, by getting better drugs than they would get from the small chemists and druggists' shops. I am apprehensive that the tendency of elevating the education of general practitioners may be to introduce a lower class of practitioners in the chemists and druggists. It does not occur to me to make any suggestion to remedy that: I think that the Legislature must always require a certain amount of information, such an amount as will qualify persons to practise with safety to the public; and if you find that chemists and druggists are rising into practitioners, you must require of them the same; therefore it is, though I cannot very well say how it is to be done, that I stated to Sir James Graham that is was desirable that there should be something like illegality or penalty affixed to unqualified practice. I trust a good deal to the high standard of professional and gentlemanly feeling for correcting some of the evils which the law cannot prevent. I would endeavour by a system, whatever it was, to produce the highest qualification that you could produce; and to give hope to all, even in the lowest grade, that they might rise to the highest if they would give the time and study requisite for its attainment. I attach the greatest importance to keeping up a high tone of gentlemanly feeling in our profession. On that ground I think it important to encourage the high grades in our profession going to the universities, as tending to connect the heads of our profession with the highest persons in the land; but I would add to that, that I think it essential to the interests of even the lower ranks of professional men: for I think that the one-faculty plan would soon be found to have a very serious effect upon the pocket of the general practitioner. It is the fact that that gentlemanlike feeling is now to a great extent spreading through the profession, and tending to elevate persons who before were in the lower scale of society.

Fees for Education.—The serious effect upon the pocket of the general practitioner to which I referred is, if the standard of payment were not regulated by high fees you would have a reduction of fees; you would have a run for cheap practice, as you have in other trades. I would not then regulate the fees of the medical practitioner by law; the fees of the physician are not regulated by law, and I am very sorry that the fees of surgeons are regulated by law; it ought to be an honorarium. The way I consider the adoption of a single faculty in medicine would have a serious effect on the pocket of the general practitioner would be this: if you have one faculty that faculty must all be brought to the level of the lowest; there would be no grades, no distinctions, nothing elevated in it; and if you brought all to the level of the lowest, it would be a run for cheapness; you would have it degraded into a trade; they would be cheaply educated, and they would compete with regard to the cheapness with which they could attend patients.

(To be continued).

COMMITTEE OF POOR-LAW MEDICAL OFFICERS.

(From the *Provincial Med. and Surg. Journal.*)

The large portion of the present number which we are compelled to devote to the Index renders it impracticable to do more than very briefly refer to a subject of pressing importance. We allude to the proceedings of the Committee of Poor-law Medical Officers. A notice has been issued by the committee acknowledging the receipt of many replies to their circular of inquiry, at the same time stating that a large number still remain unreturned. In this notice we find the subjoined passage:—

"It has been intimated to the committee that some medical men are deterred from sending their answers, by apprehension of the displeasure of the guardians. As the committee is engaged in no party or querulous undertaking, and merely asks the statement of facts for the elucidation of truth, it can scarcely believe that it would be doing justice to any board of guardians, or to any individual members of such a board, to admit that they could employ threats or other unworthy influence to prevent the return of the answers which have been required. But should it happen that any guardian or subordinate officer, through misapprehenson, has been induced to employ menaces to prevent the returns being made, the committee would encourage the subject of such menaces not to allow himself to be intimidated by them, but to rely with confidence in the justice of his cause, and in the full assurance that the best protection against such influence is to be found in tranquil publicity and steady perseverance in the path of duty."

We would fain hope that no such intimidation can be used in this country—that no board of guardians, nor any subordinate officer attached to them, would dare thus to interfere with the Englishman's privilege of freely expressing his opinions, and making known his grievances; but under any circumstances there can be no question of the soundness of the advice given by the committee.

It is requested that the returns may now be sent up with as little delay as possible, and the 7th of January is named as the latest day for reception. It is obvious that the committee will then have an important and laborious duty to perform in reducing the documents before them into order, in arranging the information which they contain, and in drawing the conclusions which they may afford. The time left for the fitting performance of this duty will not be more than is barely sufficient before the period arrives at which the information thus collected can best be used with effect, and we hope the members of the Provincial Association will not be found wanting in at once sending up the returns applied for.

AN IRISH INQUEST.

On Sunday, the 21st ult., an inquest was held at the police-office of Cappamore, by James Bennett, coroner, on the body of a farmer named Daniel Dillon, who was brutally murdered on the Friday night previous, his skull having been fractured in an awful manner, and his brains left in the field.

Dr. Arthur, resident physician and surgeon, having examined the body on the night of the murder, and attended a man who accompanied Dillon, and who was also injured, and considering, in accordance with the act of Parliament, that he (Dr. Arthur) was the person to be called on to give evidence on the inquest, proceeded to the barrack above named, on the arrival of Coroner Bennett, and went into the head-constable's room. On being introduced to Mr. Bennett, Dr. Arthur said, "How do you do, Sir?" and Mr. Bennett replied that he "could very well do without his inquiry."

The jury having been sworn, proceeded to the house of Dillon to view the body, and Coroner Bennett, going to the bed, called on Dr. Heffernan, whom he brought with him, to come and view the body.

Dr. Arthur said: I am the resident physician and surgeon, and I have seen the body on the night of the murder, whereas Dr. Heffernan has not seen it until this moment, consequently I am the proper person to give evidence in this case.

Coroner Bennett: I want to have nothing at all to do with you, nor will I have your evidence, and if you say any more I'll get you arrested by the police.

The party then retraced their steps towards the barrack, and on entering it, Dr. Arthur came forward, and, stating that he had valuable information to give, appealed to the jury not to make up their minds until they heard it; whereupon Coroner Bennett, placing himself in a menacing attitude before Dr. Arthur, said, that he would not hear his evidence; that, for all he knew about him (Dr. Arthur), he might be a quack, and he knew nothing at all about his family.

Dr. Arthur: I can produce my diplomas, and prove to you that I am a legally qualified physician and surgeon; and if I am not better qualified than Surgeon Heffernan, I willingly resign the case; and, as respects family, I consider mine far more respectable than yours.

Sub-inspector Enright: I can tell you, Sir, that Mr. Bennett is a very respectable man.

Dr. Arthur: I say it is not your business to interfere.

Sub-inspector Enright: Oh, Dr. Heffernan is the man that was called on, and has a right to give evidence here.

Dr. Arthur: It is not for the paltry sum given by the coroner that I came here to-day, but to vindicate the rights of the profession to which I belong; and I appeal to you, Surgeon Heffernan, as a brother in the same profession—if you be a man of honour, and an honest man—to have nothing to do with the case. I went some time back to Doon to assist Surgeon Shanahan——

Dr. Heffernan: I don't care; I was called on by the coroner, and I'll act.

Dr. Arthur: Very well, Sir.

Coronet Bennett then rushed over, and, catching Dr. Arthur by the collar, swore he'd drag him out if he did not leave the room.

Dr. Arthur: Do not lay violent hands on me, Sir.

Coroner Bennett: Mr. Enright, why don't you arrest that fellow?

Dr. Arthur: He cannot do that, Sir. I intend to commit no breach of the peace. I have the greatest respect for the court. I wait here to hear the evidence given.

Sub-inspector: I think, Mr. Bennett, we might leave the doctor here, if he is quiet.

Coroner Bennett: No; by G—d, he shall not remain here. Mr. Enright, drag out this fellow!

Dr. Heffernan: Had I known that matters would have turned out so, I would not have come at all.

Coroner Bennett (to Dr. Heffernan): If you do not act, I shall never give you a call again.

Dr. Arthur: Mr. Enright, I warn you not to arrest me; if you do, I shall certainly hold you accountable for the consequences. I committed

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no breach of the peace, and therefore you cannot arrest me.

Sub-inspector Enright: I shall do my duty if the coroner desires me.

Dr. Arthur: Then you shall take the trouble to make out my committal before you remove me.

Coroner Bennett: I shall do that for you, Sir.

Then Dr. Arthur was removed into the head constable's room, a policeman placed on the door, where he was detained over two hours, at the expiration of which time Mr. Enright came and told him that he might go now as soon as he wished.

Dr. Arthur requested a magistrate should come and discharge him,

Mr. Enright replied he had the magistrate's order to do so. Dr. Arthur was then removed, and threatened to proceed legally against Coroner Bennett for false arrest, &c.

GOSSIP OF THE WEEK.

War-office, Dec. 30.—41st Foot: Assist.-Surgeon David Stewart, from the Staff, to be Assist.-Surg., vice Hart, deceased.—43rd Foot: John Lawrence Johnston, gent., to be Assist.-Surg., vice Agar, appointed to the Staff.—Hospital-Staff: Assist.-Surg. Rowland Agar, from 43rd Foot, to be Assist.-Surg. to the Forces, vice Stewart, appointed to the 41st Foot.

Naval Appointments.—Surgeons: T. W. M'Donald, to the Victoria and Albert; Dr. A. S. Allen, to be surgeon and medical storekeeper at Plymouth Hospital; Benjamin Bynoc, to the Ganges.

West Norfolk and Lynn Hospital.—An election for a surgeon to the above hospital took place on Tuesday last, in the Town-hall at Lynn, in consequence of the resignation of Mr. J. B. Whiting. Mr. George Sayle, formerly curator of the Anatomical Museum in the school of St. George's Hospital, being proposed and seconded, was declared unanimously elected.

Chair of Clinical Surgery in Edinburgh.—Professor Miller, now in the chair of surgery, is about to be appointed by Government to the chair of clinical surgery, vacant by the removal of Professor Syme to London.

The Cholera cured by Ether.—The *Courrier des Etats-Unis* quotes the following from the *Gazette des Hôpitaux*:—"M. Bruno Taron, surgeon-major of the Ottoman army, and formerly inspector of health in Bulgaria Syria, &c., was a physician at Marseilles at the time of the second period of the prevalence of the cholera in that city in 1837. In the midst of his care of his patients and his service at the hospital he was one day himself seized with the epidemic, and had no doubt of the symptoms. The following is M. Taron's description of his situation:—'It was midnight, I had been in bed an hour, when suddenly a general chill seized me. This chill was soon accompanied by vomiting and other symptoms of the cholera, including the cold sweats. An hour after, these were followed by violent cramps in the extremities.' These are certainly symptoms of cholera. M. Taron was alone, his family having fled from the scourge, and he had no servant. He found himself without help in the middle of the night, overpowered by the disease, and by the terrible certainty of a near approaching death, and without any remedy, he says, but a large bottle of sulphuric ether which happened to be in his chamber. 'Having no other resource, I seized this large bottle,' says M. Taron, 'and I inhaled it freely. Immediately my respiration, which had been oppressed, became more free, and I felt a sensation of relief and general comfort. Afterwards the perspiration, which had been cold and wearisome, became warm and gentle. The functions of my senses were soon suspended, and I slept profoundly. All these happy ameliorations took place promptly under the influence of the inhalation of sulphuric ether. I slept without pain or disturbance for six hours, after which I awoke, feeling all over me great weakness. I had unconsciously been in a perspiration through the night. This day and the following I had some blackish alvine evacuations. My strength returned by degrees. I was completely cured.' M. Taron finished his letter by confessing that, not knowing at the time the power which is exercised by ether over the nervous centres, he did not attribute to this agent the honour of his sudden cure, but that he referred it entirely to one of those fancies, those caprices of nature, for which it is impossible to account. It is a pity, adds the *Gazette des Hôpitaux*, that the observation of our brother should be isolated and unique, but it is important, as being the first point from which experiments may start. Heaven grant that we may not have an opportunity among ourselves for experiments of the kind. The *Gazette du Midi* says, that a physician of Marseilles, a friend of the editor, has confirmed, by his testimony, the observations of M. Taron. Experiments of this kind have been made with success in the countries of the East, where the disease had made its first ravages. Academies of medicine will doubtless gather positive information on this subject, and order new trials with all conditions which may render them decisive for science."

The Cholera.—We read the following in the *Constitutionnel*:—"The *Gazette des Hopitaux* of Friday contains a notice of a case of cholera, terminated in some hours by death, addressed to it from Fontaine-sur-Somme, by M. Judey. It is of importance that the public should familiarize itself with facts of this kind, and know well that the cholera, like the typhus fever, may, without reigning epidemically, find, in certain meteorological states, conditions which sufficiently favour its development to cause it to show itself at one period sooner than at another, under different forms and with different results; and assuredly the path which the cholera now follows far from us, in places where it reigns epidemically, ought to fix our attention and our solicitude much more than the isolated cases which we may meet with around us. During the last fifteen days the epidemy of the *grippe*, which continues to reign at Paris, although diminishing in intensity, has changed a little in character. We now observe oftener than at the beginning, in the place of colds, coughs, coryza, and accidents in the organs of digestion, colics, diarrhœa, and rarely vomitings. This change in the form proves that the character of the *grippe* is to fix on such or such a part of the organs, more under the influence of a disposition common and unknown than of an individual and explicable disposition, without ceasing on that account to be the same malady, the same epidemy. It is possible that this change of form is owing to the temperature, which is singularly mild for the season, and to the fogs which have prevailed for some time, circumstances which manifestly predispose people to abdominal affections."

Chloroform.—This agent was lately employed at St. George's Hospital during the removal of the upper jaw and portions of the bones of the face. The operation was performed by Mr. Henry Charles Johnson, on a boy nineteen years of age, suffering from a large fungoid growth, and implicating a large amount of the upper jaw and other structures about the face itself. It was most satisfactory to observe the effect of the chloroform, which, though it could not be applied entirely throughout the operation, afforded so much ease and composure to the sufferer, that the surgeon was able to proceed without those impediments which have formerly stood in the way of similar dangerous and painful operations. Several non-professional gentlemen attended to witness the effect.

Pyke v. Harvey.—Mr. Sergeant Byles (with whom was Mr. Leek) appeared for the plaintiff; and Mr. Humfrey, Q.C. (with whom was Mr. Cook Evans), for the defendant. The action was brought to recover the sum of £65. 2s. 8d. for commission due upon the sale of a surgeon's practice. It appeared from the evidence that the plaintiff is a law and medical agent carrying on business in Chancery-lane, and that the defendant was formerly a surgeon residing in Great Queen-street, Lincoln's Inn-fields, but had recently become surgeon to an institution in Soho-square for the cure of diseases of the ear. On the 14th of December, 1846, the defendant had instructed the plaintiff to offer his practice in Queen-street for sale, and the plaintiff had accordingly inserted an advertisement in the *Lancet*, and another in the *Medical Times*, containing a description of the business. On the 23rd of December the plaintiff had received an application from a gentleman of the name of Stevens, who subsequently became the purchaser, requesting to be furnished with the particulars, which the plaintiff's son, formerly a barrister, said were forwarded to him by himself on the same day; but the contract was afterwards concluded by the defendant without the intervention of the plaintiff. Mr. Pyke, the plaintiff's son, who was called to prove the plaintiff's case, underwent a rigorous cross-examination, and admitted that he had been disbarred by the benchers of his inn, and that he had appealed to the fifteen judges, by whom the decision of the benchers had been confirmed; but he said he had appealed to the House of Commons, which had referred the matter to a committee, by whom it had been reported that the benchers had no such power. Mr. Humfrey called Mr. Stevens, who said he had written to Mr. Pyke, but that the letter which he had received was not dated, as had been stated by him, on the 23rd of December, but on the 24th, and was received by him (Mr. Stevens) on the 25th. He also proved that on the same morning he received a letter from a Mr. Orridge, an agent, who had also been employed by the defendant, containing particulars of a business to be disposed of; and that without replying to the plaintiff's letter he came to town, and was introduced by Mr. Orridge to the defendant, and purchased his business; and that he did not discover till afterwards that it was the same business about which Mr. Pyke, the plaintiff, had written to him. It was also proved that the defendant had tendered £5 to the plaintiff for the trouble of receiving the instructions, and to cover the expense of inserting three advertisements in the papers. The learned Chief Justice summed up the evidence very minutely, and the jury gave a verdict for the defendant.

Obituary.—At Cupar-Fife, on the 23rd ult., Andrew Mackie, Esq., M.D., aged 30.—At Pangborne, Berks, on the 26th ult., James Craig Somerville, M.D., aged 48.—At Southsea, on the 28th ult., in his 79th year, Benjamin Lara, M.D., upwards of forty years resident physician at Portsmouth.—On the 27th ult., Swinton M'Leod, Esq., Deputy Inspector-General of Hospitals, and late of the 42nd Royal Highland Regiment, aged 72.

THE FATAL BLUNDER.

[To the Editor of the Medical Times.]

Sir,—Dr. Watson's reply to the special pleading of Dr. Williams, and Dr. Williams's rejoinder to Dr. Watson's "facts," are very important documents to the medical public, as the whole correspondence affords the most incontrovertible proofs of the blunders of the whole conclave of *eminent* physicians on whom the late Mr. Liston had pinned his faith, and of the dangers and fallacies which those are exposed to who trust alone to the physical signs of disease. It is not surprising that Dr. Watson should have felt bitterly the imputations cast upon him by Dr. Williams, and, above all, that he should have felt acutely the exposure which Dr. Williams has made of the mummery of auscultation. I say Dr. Watson's disapprobation of Dr. Williams's conduct, but I take it for granted that Dr. Watson is put forward on this occasion not only as his own advocate, but as the mouthpiece of Drs. Forbes and Latham, to whom Dr. Williams's sarcastic observations are equally applicable.

It appears that even after the second examination made by Dr. Watson, as quoted from "my note-book," that he mistook the aneurism which Mr. Liston then suffered from for "the rapid multiplication of small tubercles;" and, by the confessions

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of "my own note-book," the learned doctor was led to his erroneous conclusion of the true nature of the disease, not only from the fallacy of his stethoscopic examinations, but, to use his own words, "from Mr. Liston's mother and sister having both died of consumption." Subsequently to his having given up that fallacious opinion, Dr. Watson, along with Dr. Forbes, came to the conclusion, which must have been most unsatisfactory to the unfortunate patient, that they really did not know what the disease was, and, consequently, they did not adopt that rational system of treatment which might have impeded the progress of the aneurismal tumour.

I perfectly agree with Dr. Watson in accusing Dr. Williams of his want of courtesy and fairness in publishing his letter without previously ascertaining the facts of the case, and also that it was uncharitable and ungenerous in Dr. Williams to exhibit the "mistakes" of his professional brethren, more especially as such exhibition was made to throw a veil over his own blunders. Still more sincerely do I agree with Dr. Watson in the bad taste, not to say dishonourable course, which those medical men pursue in proclaiming the "ignorance or unskilfulness" of their professional brethren; and, though I cannot look back far enough to know what a Heberden or a Baillie might have done—a question put by Dr. Watson so emphatically—let me ask him, in my turn, what a Seymour, a Holland, a Latham, or a Forbes would *not* have done?

With too much justice I can assure Dr. Watson and his friends that general practitioners have great cause to complain of the very same system of conduct of physicians, of which Dr. Watson now writhes under from a *Fellow* of his own caste!

HUMANITAS.

Windsor, Jan. 4.

MORTALITY TABLE.

For the Week ending Saturday, Jan. 1, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	1599	1046
SPECIFIED CAUSES...	1599	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	420	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	150	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	203	157
Diseases of the Lungs, and of the other Organs of Respiration	497	338
Diseases of the Heart and Blood-vessels.....	48	34
Diseases of the Stomach, Liver, and other organs of Digestion	87	74
Diseases of the Kidneys, &c.	15	9
Childbirth, Diseases of the Uterus, &c	23	14
Rheumatism, Diseases of the Bones, Joints, &c. ...	9	7
Diseases of the Skin, Cellular Tissue, &c.	4	2
Old Age.....	64	65
Violence, Privation, Cold, and Intemperance.....	79	29

TO THE SUBSCRIBERS OF THE MEDICAL TIMES.

Gentlemen are respectfully informed that the following are the terms of subscription to the *Medical Times*:—

IN ADVANCE FOR THE STAMPED EDITION.

Per quarter ..	£ 0	7	7
Per half year..	0	15	0
Per year ..	1	5	0
Life subscriber	10	10	0

All post-office orders should be drawn in favour of James Angerstein Carfrae, and gentlemen whose subscriptions are expired, will much oblige the publisher by forwarding their renewals without delay. The large reduction, indeed, made in favour of annual and life subscribers is given with the view of *securing*, without trouble, the punctuality, promptitude, and certitude of subscribers' payments.

TO CORRESPONDENTS.

The "QUACKERY" ADVERTISEMENTS.—Several more correspondents have addressed us during the last week on this subject: one, by the way, which appears daily to arouse a very wide-spread and increasing indignation and disgust. The general recommendation of our correspondents centres in this: that if all odds—including professional honour and journalist repute—be staked in purloining surgical practice for a youthful offshoot, the party, whether succeeding or not, must be prepared, both as M.P. and as journalist, to pay the price of his daring enterprise, and give the penalty of his anti-professional outrage. There are few readers of delicate honour who have not already anticipated this decision.

"A Member of the College, and a Subscriber."—We are not aware of any particular privileges which members possess. Any unqualified person may assume the name of Surgeon without the danger of prosecution. Membership, however, is a necessary qualification for a poor-law appointment, combined with the holding of the Apothecaries' certificate.

"Civis."—Mr. Walker's efforts on behalf of sanitary reform are very praiseworthy. The conduct of the parish authorities towards him, for permitting the public to view the disgusting receptacle under Enon Chapel, not only redounds to their disgrace, but will indirectly help forward Mr. Walker in his work.

"T. O. B., Manchester."—We cannot offer any opinion on the case from a mere written statement. Inspection and close examination are necessary in order to arrive at just conclusions.

"An Assistant Surgeon, R.N."—The statement had better be laid before Sir Wm. Burnett; it is a matter in which the public press can do but little.

"Alpha."—Some German physicians have used, in the treatment of psoriasis inveterata, the aqua picis liquidæ, which they say has effected a cure when all other means have failed. This is prepared by pouring a quart of cold water over a pound of pitch and leaving it to stand for twenty-four hours in a cool place, and then to filter. A beer-glassful is to be taken every morning fasting; and the parts affected to be bathed with it twice or three times a day.

"Mr. E. Jamieson, Edinburgh."—Any person can set up as a chemist and druggist in London without undergoing an examination. The heads of the trade are endeavouring to get some enactment to compel persons hereafter to undergo a systematic education, and an examination.

"Medicus."—There are no difficulties in obtaining admission to the Parisian hospitals. Foreign medical men, on presenting their medical qualifications, are permitted to see the practice in these institutions without the payment of a fee.

"Scalpel."—The facts stated shall not be overlooked; we shall be glad to hear again from our correspondent.

"Rusticus."—Access to the library of the British Museum can only be obtained by an order from one of the trustees.

"Edward S."—The preparation has been employed with success in the case mentioned.

"A Graduate, Cambridge."—Special certificates would be necessary; the secretary of the college ought to be consulted.

"Crassus."—The lesion referred to is of frequent occurrence, but the symptoms of its existence are often obscure.

"A Practitioner of Twenty Years' Standing."—The debt can be recovered in the county court with but little expense.

"Mr. Edward Littleton."—Some medical gentlemen use an apparatus for the administration of chloroform, but it is not necessary; its principal advantage is, probably, that it prevents waste of the anæsthetic agent.

"Questor."—A letter forwarded to the publishers will be the means probably of stirring them up to the fulfilment of their promises.

"B. B., Clapton."—The communication has been acknowledged, and we regret that we have not yet been able to find a place for it in our columns.

"Detector" writes us, in reference to the Hunterian School of Medicine:—"Your correspondent 'Veritas' does not deserve the name he assumes. In the first place, the lectures have been most regularly delivered, with the exception of one or two, which were omitted in consequence of preparations to be made in the museum (which is considerably enlarged) on account of the expected visit from the College of Surgeons, who had requested the lecturers to prepare a catalogue. Three of the lecturers, Dr. Aldis, Mr. Riadore, and Mr. Chippendale, undertook these duties, the latter gentleman being compelled to devote a considerable portion of his time for more than a week. What was this but attending to the interests of the pupils? I beg to deny that the preparations in the museum have been seized, but I am willing to admit that a few preparations belonging to one of the lecturers were seized in a room in Tottenham-court-road, for a debt which was contracted before the present management of the school was commenced, and of which the lecturers were entirely ignorant. The dissecting-room has been closed, it is true, for a few days, as the inspector of anatomy did not approve of it; but another will be immediately provided. Now, with regard to supercilious treatment, Dr. Aldis, the superintendent of the school, when written to on several occasions by the pupils, always returned an answer immediately, and at their request gave an ample explanation of the unavoidable difficulties by which the lecturers had been beset during the present session, and which they have one by one surmounted, at a full meeting of the pupils, in the lecture-room, on the 15th ult.; and, if I may judge from the manner the explanation was received, it seemed to be most satisfactory."

"Mr. C. D. Fitzpatrick, Bootle, Liverpool," complains of the hardship under which members of the College of Surgeons labour in not being able to recover in the county courts debts for medical attendance, &c. He remarks:—"I was a few days ago informed by an acquaintance of mine, a highly-respectable surgeon of acknowledged ability, for many years practising within a short distance of Liverpool, that after many repeatedly unsuccessful applications to some of his patients, who, though in comfortable circumstances, continued a long time in his debt, he at last summoned six of the most incorrigible of the delinquents to the county court for the recovery of his fees, where he was publicly informed by the judge of the court, that he was not legally entitled to any redress, as he did not possess a licence from the Apothecaries' Company, and all his claims were dismissed. If this really is the state of the law, it is, to my mind, a palpable injustice, and a practical denial that the surgeon has any right to receive compensation for his time and skill, in the exercise of the most useful and exalted department of his profession—that of everting, by the skilful application of remedial agents, the necessity of painful operations, by which he is often enabled to obviate the revolting spectacle of blood-spilling, and the forfeiture of a valuable limb; and it is scarcely necessary here to remark, what is now universally admitted by the best informed, that the success of every surgeon depends more upon his skill in conducting the medical treatment of those cases requiring operation, than upon his dexterity in the use of the knife. It is, therefore, a downright injustice to deny to the surgeon redress by law, whenever he has had the good fortune of being able to save life and spare limb, but the misfortune to have met with dishonest parties; and it is too often the case that dishonourable men, aware of the unprotected condition of the surgeon, take advantage of the legal defect, and do not hesitate to make him their victim."

"Mr. Thomas Garlike, Rickmansworth."—The observations on the uses of chloroform were received, but they have been delayed from press of matter.

"Chemicus."—The test is of doubtful efficacy. It would be better to seek the assistance of some practical chemist.

"A Student, King's College."—The work is now complete, and can be had of any bookseller.

"A Country Surgeon" will find the general subject of his note anticipated.

"An Edinburgh Physician" is qualified for examination at the London college.

"An Invalide."—The office mentioned is a respectable one.

"F. Mansfield."—An inquiry shall be made, or a private note transmitted.

"A Subscriber for a Year" writes us, in reference to the election of a medical officer to a poor-law union, as follows:—"Three candidates started and canvassed; two were legally qualified, one was a 'M.C.' from Glasgow, and had no other qualification. The election terminated favourably to the Glasgow 'M.C.,' though the guardians had passed a regulation, not five minutes previous to the decision of the election, 'That the rules and regulations of the poor-law guardians, as related to the election of a medical officer, should be abided by.' Yet, strange, as I have stated it, the election was favourable to the only illegal candidate, he having 15 votes; the second candidate, 9 votes; the third, no votes. The poor-law commissioners have been petitioned against the return, and have replied, to the effect that 'they will look into the matter.' Now, Mr. Editor, do you think the poor-law commissioners will sanction the election, there being no let or hindrance against the second candidate? And will another election have to take place, should the illegal candidate's election be cancelled? No protest was entered on the minutes against the election of the 'M.C.,' yet the chairman, having being asked, prior to the ballot, whether the 'M.C.' alone was a legally sufficient qualification, answered in the negative. Yet, as I observed before, in contradicton to their own resolution, 'that the rules and regulations of the commissioners should be abided by,' they elected the 'M.C.' The second candidate on the poll was a non-resident at the time of election, though he is a resident now. Will this affect the decision of the commissioners?"

Letters and communications have also been received from Mr. Bruarton, Wincanton; Mr. Osborne, Epperstone; Mr. Hallister, Newent; Mr. M'Pearson, Staleybridge; Mr. Upton, Tadcaster; Mr. Spurgin, Northampton; Mr. Morris, Spalding; Dr. Master, Kildarock; Mr. Dovaston, Llandrino; Mr. Spencer, Hindon; Mr. Tomlinson, Maldon; Dr. Boyd, New Ross; Dr. Montgomery, Southam; Dr. Wilson, Alnwick; Dr. Brady, Nantwich; Dr. Mackesy, Waterford; Dr. Ryott, Thirsk; Mr. Peart, Feckenham; Mr. Watson, Bolton; Mr. Fitzpatrick, Liverpool; Dr. M'Tyer, Maybole; Mr. Mann, Norwich; Mr. Craig, Bath; Mr. Hambeden, Grimsby; Dr. Hooper, Buntingford; Dr. Shirley, Lanark; Mr. King, Camelford; Mr. Bruce, Antrim; Mr. Dandy, Rufford; Mr. Carpenter, Castlecomer; Mr. M'Gregor, South Heiton; F. Mansfield; An Invalide; An Edinburgh Physician; A Country Surgeon; A Student, King's College; Chemicus; Mr. Thos. Garlike, Rickmansworth; Mr. C. D. Fitzpatrick, Bootle, Liverpool; Detector; B. B., Clapton; Questor; Mr. Edw. Littleton; A Practitioner of many years' standing; Crassus; A Graduate, Cambridge; Edward S.; Rusticus; Scalpel; Medicus; Mr E. Jamieson; Alpha; An Assistant-Surgeon; R. R.; T. O. B., Manchester; Civis; A Member of the College, and Subscriber.

Mr. H. Norris' paper "On a Remarkable Disease, analogous to Cretinism," shall appear next week.

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No. 433. SUMMARY. JAN. 15.

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ORIGINAL LECTURES.

LECTURES ON GENERAL PATHOLOGY,

DELIVERED TO THE

FACULTY OF MEDICINE

DURING THE PRESENT YEAR,

By PROFESSOR ANDRAL.

Reported for the *Medical Times* by D. M'CARTHY, M.D. Paris, &c.

SECOND SERIES. CHAPTER II.—(*continued.*)

SEMEIOLOGY OF DISEASES OF THE CIRCULATION.—AUSCULTATION OF THE HEART.

The morbid sounds heard in the precordial region may be generated inside or outside the heart. Those which are produced within its cavity have received different names, according to their more or less close resemblance with other sounds to which our ear is accustomed; hence the denominations of *bruit de soufflet*, or *souffle* (bellows murmur), cooing, whining, rasping, or sawing sounds. The musical or cooing sounds are more marked in the arteries than in the heart, and we will speak of them on a future occasion. When a morbid sound precedes the first bruit of the heart it is called præsystolic; when it coincides with the first bruit it is a systolic sound. If the abnormal sound accompanies the second bruit, it is named diastolic. Diastolic bruits are generally soft; those which precede or accompany ventricular systole are much more frequently rough. In the auscultation of these sounds it is necessary to pay great attention to the extent over which they may be heard, and also to the spot in which they present their greatest loudness; the semeiotic signification of a morbid sound varying considerably, according to the seat of its maximum of intensity. The pathological conditions in which these abnormal sounds are produced are extremely various; thus we find them in four distinct circumstances: in the first place they are met with whenever alterations existing in the heart interfere with the free passage of the blood from the auricles to the ventricles, or from the latter into the arteries; for instance, strictures of the orifices, valvular lesions, polypous deposits, &c. Secondly, we find morbid sounds when such alterations have occurred within the heart as to permit the return of the blood from the arteries into the ventricles, or from the latter into the auricles; this insufficiency may be produced by various valvular alterations, or by simple enlargement of the orifices consequent upon dilatation of the heart. Thirdly, morbid sounds are formed when an accidental communication takes place between the right and left cavities of the heart. Fourthly, when the heart is lacerated without complete rupture of its walls, and infiltration of blood takes place into its substance. It has been said that in simple hypertrophy morbid sounds may be produced. We believe that in general it is not so: although it is not impossible that by hypertrophy a change may occur in the relative dimensions of the cavities and of the orifices of the heart. Morbid sounds generated within the organ may be produced also by pericarditis, but usually the abnormal bruits characteristic of this inflammation are formed outside the viscus.

The heart remaining healthy, morbid sounds may be also produced. Thus, when the blood has been impoverished, souffle is heard. When, for instance, the amount of the globules of the blood descends below $\frac{80}{1000}$, souffle is always produced in some part of the circulating organs: always in the arteries, often in the heart. In plethora we do not find any change in the sounds. It is incorrect to say that febrile excitement causes murmurs in the heart: this occurs only when some complication is present. In ague, when the prolongation of the disease has brought on anemia, we may hear souffle, but it is the anemia, not the fever, which produces it. Laennec believed that certain morbid conditions of the nervous system might occasion in the heart a bellows murmur. We deny it altogether, and assert that hysteria and hypochondriasis present this symptom only when accompanied by anemia. In a certain number of pregnant women, one of the effects of pregnancy is to diminish the globules of the blood, and, therefore, in some instances, we will not be surprised to hear a souffle in the heart.

With these data we can now convert these morbid sounds into signs of disease; and from their varieties of nature, of tone, and of seat, ascertain the morbid state which occasions them.

In the first place let us first point out their signification in alterations of the heart. We have said that they might be produced by an obstacle to the free passage of the blood from the auricular into the ventricular cavities. This should chiefly be applied to the left cavities, the right side being very rarely diseased. Laennec had established as a law, that a souffle at the second beat of the heart was characteristic of auriculo-ventricular stricture. This *à priori* assertion, supported by no cases, was, however, for many years blindly adopted, when Dr. Corrigan showed that insufficiency of the aortic valves was also productive of a souffle accompanying the second bruit. Researches were instituted for the purpose of discriminating these two morbid states from each other, and Laennec's opinion began to be doubted when it was found that it was purely theoretical and not derived from observation. One case only is in existence, of a souffle having been heard at the second beat of the heart, in conjunction with auriculo-ventricular stricture; it has been published by Dr. Andry, in his "Manual d'Auscultation;" but this case is a solitary one, and cannot be considered as a rule. From the interesting researches of Dr. Fauvel, we must conclude that, when the auriculo-ventricular orifice is strictured, a præsystolic bruit is heard, often beginning before the first sound, and finishing with or a little before it. This morbid sound has its greatest intensity towards the apex of the heart, and more or less to the left. We should not forget that some strictures of this same orifice cause no souffle, and that in these cases the diagnosis must be derived from other sources.

When an obstacle exists to the passage of the blood from the ventricular cavities into the arteries—when, in other words, the arterial orifice is strictured—Laennec correctly asserts that a souffle is heard accompanying the first sound of the heart. This sound has its greatest intensity at the basis. It is heard almost exclusively in rheumatic endocarditis—a circumstance which shows that a feeble obstacle generates a morbid sound more readily in the arterial than in the other orifices. When the abnormal murmur is prolonged beyond the first bruit, and occupies also the short silence, or even anticipates slightly over the second bruit, we should conclude that a considerable difficulty exists to the passage of the blood into the aorta.

Morbid sounds accompanying the second bruit of the heart are connected with the reflux of the blood into cavities which it had abandoned; or, in other words, with insufficiency of the valves to close their orifices. This is certain, at least, for the aorta; but the diagnosis of auriculo-ventricular insufficiency is not so far advanced. The general opinion, it is true, is that this disease is productive of a souffle at the first beat of the heart; but it is a question which has not received a definitive solution. The insufficiency of aortic valves may be congenital, or result from perforation, laceration, adhesions, &c.; further, they may be unaltered, and still be insufficient, the aorta having undergone more or less dilatation. In all these various states the second sound of the heart is replaced by a constantly soft bellows murmur, the greatest intensity of which is at the basis of the organ. In false aneurism of the heart, when accidental cavities form in its walls, a souffle is also heard, and generally at the second bruit. With regard to the communication of the right cavities with the left, a souffle is produced, but its diagnostic value is not hitherto well established. If a souffle was ever produced in simple ventricular hypertrophy, it would be heard at the first beat of the heart.

In very abundant effusions in the pericardium a souffle has sometimes been heard, after the second bruit, and replacing the long silence. On *post-mortem* examination the orifices were all found healthy; and, in order to explain the production of this morbid sound, it has been supposed that this souffle, which disappeared when the patients were made to sit upright or to bend forward, and which returned when they reassumed the horizontal position, was due to the pressure exercised by the effusion upon the origin of the aorta.

Dr. Aran states that, when the second sound of the heart altogether disappears, it is characteristic of adhesions of the pericardium to the viscus. We do not pledge ourselves for the accuracy of this sign.

The souffle of anemia has special characters, which we will now enumerate: its tone is con-

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stantly very soft; it is always a systolic sound, heard most distinctly at the basis of the heart, and invariably coincides with vascular murmurs.

Disease of the pericardium occasions morbid sounds. They are caused by the friction of the serous surfaces, rendered more or less rough by the presence of false membranes or other deposits. They vary from the softest friction to a creaking sound analogous to that produced by new leather. They may accompany one or the other, or both sounds of the heart, and can readily be distinguished from sounds due to friction in the pleura; the latter accompanying the respiratory movements, and not the contractions of the heart. They may be continuous or intermittent, according to their cause; but they are always superficial. On listening with attention a gurgling sound has sometimes been detected; its origin is in the stomach, not in the pericardium. In one curious case, observed at Hôpital Necker by Drs. Bricheteau and Beau, a gurgling was heard in the precordial region, which those experienced observers compared to the sound produced by the rapid motion of paddles in water. On *post-mortem* examination fluids, mixed with gas, were found in the pericardium, no signs of putrefaction being present at the time. This solitary case is sufficient to prove the mere possibility of such an occurrence, but it is, we repeat, extremely rare.

Chapter III.

Symptoms furnished by disturbance of the arterial circulation.

These symptoms may be recognised by inspection, palpation, or auscultation.

Inspection informs us of the increased energy of arterial pulsation. In valvular insufficiency this increased energy is very remarkable, and often assists materially the diagnosis. We also find in cerebral congestion that the pulsations of the carotid and temporal arteries can be recognised by inspection. Aneurisms and erectile tumours present the same sign. In hypochondriasis and hysteria the aortic pulsations may sometimes be seen in the epigastric region—a singular and hitherto unexplained symptom. Patients occasionally feel the arterial throbbing; hypochondriacs, for instance, and persons affected with cerebral congestion, acute gastritis, or phlegmonous inflammation.

By palpation we recognise the frequency, strength, and rhythm of the pulse.

Some physiological circumstances cause the pulse to vary in frequency—age, for instance. Drs. Jacquemier and Lediberder state, that shortly before birth the pulsations of the fœtus in utero vary between 108 and 160; during the first four minutes of life they descend to 72—94, and rise in the course of the first day to 96—154. Sommering asserts that the average of the pulse during the first year is 135; 120 during the second; 110 during the third; 100 during the following years, and 80 at puberty. Goreham gives 123 as the average pulse of children one day old, and 128 during the first week. M. Valleix says that between the second and the twenty-first day the average of the pulse is 90. M. Trousseau, during the first two months of life, considers 137 as the standard of the pulse; from the second to the sixth month, 128; and 120 during the second half of the first year; from one year to eighteen months, 118. The pulse varies at all times of life during sleep. In thirty children, aged from fifteen days to six months, Professor Trousseau found the average of the pulse, awake, 140, and asleep, 121; in twenty-nine children, aged from six to twenty-one months, when awake, 128, and when asleep, 112. The pulse of the child becomes in disease much more frequent than that of the adult, and tends to remain so during convalescence—an important fact which should not be lost sight of. In the adult the average of the arterial pulse is 60—70. But great individual differences are observed; it is rare, however, to find the pulse descend below 50. Napoleon is said to have had only 40 pulsations in one minute. Below this number we believe that a pathological cause may always be found to exist, and to account for the extraordinary slowness of pulsation. In some persons the pulse is naturally quick, 80—90, and even 100. The researches of Drs. Leuret and Mitivié, at the Asylum of La Salpêtrière, show that in the aged the frequency of the pulse increases. At twenty-one years of age the average of the pulse is 65; at seventy-one it is 74. The pulse of women is more frequent and more changeable than that of men, and, like children, women often preserve a quick pulse during convalescence.

In disease we find sometimes 200 pulsations in one minute; beyond this it is difficult, if not impossible, to count the pulse with any degree of accuracy. The increase of frequency of the pulse is the rule in fever, although some exceptional cases are said to exist in which the pulse remains low, but animal heat is augmented: we believe these cases refer to persons who, during health, have naturally a very slow pulse. Muscular exertion increases both animal heat and the quickness of the arterial beat; but excitement of the nervous system quickens the pulse without augmenting the animal heat: hence what are called nervous subjects usually have a frequent pulse. Debility and loss of blood generally quicken the pulse. In acute disease increase of frequency of the arterial circulation is usually an unfavourable circumstance, and when it is consequent upon venesection it shows that depletion was improper. The exhibition of some medicines, digitalis for instance, slackens the pulse; in some cerebral affections it is also slower than during health. Of all the diseases of the heart, that which produces most frequently acceleration of the pulse is, beyond doubt, insufficiency of the aortic valves; and in general, when the pulse is diminished in frequency during organic affections of the heart, it is only diminished in appearance, and not in reality, some of the arterial pulsations being merely so weak as to escape detection.

With regard to its strength, the pulse may be soft or hard, strong or weak, high or low, depressible, full, wiry, undulating, or double (*bis feriens*). In simple hypertrophy of the heart, the pulse is hard; it is, on the contrary, remarkably soft in atrophy and in dilatation of the viscus. When the aortic orifice is considerably strictured, the pulse loses its strength; it becomes small and wiry (*serré*) in contractions of the auriculo-ventricular orifice. When the aortic valves are insufficient, the pulse is hard and full, a fact accounted for by the almost invariable coincidence of aortic insufficiency with ventricular hypertrophy. Whenever, therefore, in organic disease of the heart, you find the pulse peculiarly full and strong, direct your attention towards aortic insufficiency, which you will seldom fail to detect.

At the ages of sixty-eight or seventy the pulse generally acquires a considerable degree of hardness, perhaps on account of the tendency at that age to hypertrophy of the heart.

The strength of the pulse is also modified by the condition of the blood. In plethora it is full and strong; in confirmed anemia usually weak, on account of the smallness of the column of blood propelled into the arteries, and of the diminished energy of the contractions of the heart. We cannot admit with Dr. Beau that in advanced anemia the pulse is full. We conceive that opinion to have been brought forward by that observer as a theoretical consequence of another view of his—which we do not adopt—viz., the increase of volume of the mass of blood from the augmentation of its watery element.

Hemorrhages are often preceded by that state described in the first series of these lectures under the name of molimen hemorrhagicum. Besides this general disturbance, the pulse acquires an undulating character. After hemorrhage the pulse is depressed and low, in proportion to its abundance.

It is important to distinguish between two varieties of small pulse, each indicative of a different condition of the system: in one vital power is really depressed, in the other it is concentrated. The pulse of peritonitis and the pulse of advanced fever are both small; but the former is hard, the latter depressible; the former becomes fuller and stronger by depletion, the latter would by venesection be brought still to a lower state. In marked feverishness the pulse becomes full and tense, particularly on the approach of perspiration. It is not explained why in typhoid fever the pulse is so often double (*bis feriens*). The pulse of internal inflammations is not by any means always the same; compare in this respect the pulse in peritonitis and in pneumonia. When the nervous system is deeply affected, the heart is not solicited to powerful action, and the pulse becomes small and sometimes very difficult to feel, as in the pains of painter's colic, of hepatic and nephritic colic, &c.

If we consider the rhythm of the pulse, it may be regular, unequal, irregular, or intermitting. The inequality of the pulse refers more to its strength, and the irregularity to the succession of its beats.

Great nervous disturbances may render the pulse irregular and intermittent; in meningitis, particularly of childhood, after the exhibition of digitalis, before syncope, in confirmed debility, after abundant alvine discharges, this is frequently observed. In acute diseases irregularity of the pulse is uncommon, except when they draw rapidly towards a fatal termination.

Constant and persisting irregularity of the pulse indicates almost always disease of the heart. In hypertrophy of the heart, and in valvular insufficiency, the pulse is seldom irregular; but in strictures of the orifices, on the contrary, we often meet with this symptom, and mostly in strictures of the left auriculo-ventricular passage. The souffle may be absent, but the irregularity of the pulse is quite as important. The aortic orifice, on the contrary, when strictured, more constantly is accompanied with souffle, and less often with irregularity of pulse.

It is frequent after the age of sixty to find the pulse intermittent, no other symptom of disease being present; this almost always indicates incipient alteration of the bicuspid valves. Repose and venesection remove this sign, but aggravate it if improperly repeated. When organic disease of the heart causes these intermissions of the pulse, it is not very unusual to see them suppressed by accidental feverishness, by which the heart is stimulated to increased exertion. Some patients are conscious of these irregularities from a peculiar sensation experienced in the region of the heart. Not to forget anything, let us also add, that when the principal artery of a limb is obliterated, its pulsations cease to be felt. Corvisart stated that some organic diseases of the heart, passive aneurism (dilatation), for instance, might occasion gangrene of the skin of the lower extremities, or even of other parts of the cutaneous surface. No case had, however, been brought forward in support of this opinion; but in July, 1847, an interesting case appeared in the "Gazette Médicale," of Paris, observed by Prof. Forget, of Strasbourg; it was one of very considerable stricture of the left auriculo-ventricular orifice; the aortic passage being healthy; the pulsation of the radial artery was unequal and intermittent; none was discernible in the femoral arteries. Mortification showed itself on the feet and legs, and on dissection the iliac and femoral arteries were found obliterated by ancient clots of blood, the vascular walls having remained perfectly unaltered.

In our next lecture we will pursue this subject, and treat of the signs furnished by auscultation of the arteries.

CLINICAL OBSERVATIONS ON SOME OF THE MORE FREQUENT DISEASES OF CHILDREN.

By W. HUGHES WILLSHIRE, M.D. (Edin.), M.B.S., Physician to the Royal Infirmary for Children, &c.

(Continued from page 231.)

Gentlemen,—I have to conclude to-day the consideration of the treatment of diarrhœa. You will recollect that in my last lecture I laid be-

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fore you those means of procedure which I believed to be most beneficial in the catarrhal or non-inflammatory forms of the disorder; and most of what I said to you related rather to non-febrile or more moderate attacks of the former: such cases, in fact, which, whilst you attended to the removal of their general causes—the putting in force proper dietetic and hygienic regulations—would, in all probability, be cured by the administration of an emetic, absorbent and antacid powders, or the common chalk mixture, containing aromatic confection and an astringent tincture. I, however, noticed those examples in which opium and some other remedies were advisable—even purgatives, although the disorder you had to treat was diarrhœa. In the forms of this affection which I have now to speak of you must have recourse to the additional means which I shall now refer to.

I have told you that the simplest forms of diarrhœa may run on to the most severe inflammatory one, and that it is often very difficult to say when the transition has taken place from a mere functional derangement into one now dependent upon, and kept up by, decided anatomical alterations. This partly arises from the fact that between the intensity of the symptoms of the more frequently met with forms of entero-colitis, and of those of obstinate and severe types of catarrhal diarrhœa, there is little or no difference; and, luckily, the treatment proper for the one will be that which is right to be adopted in the other. There, undoubtedly, occur cases in which acute entero-colitis breaks out at once with intense febrile erethism and increased action of the capillary system, accompanied with much pain of the abdomen; stools squirted out forcibly, and having blood in them. In such cases as these a direct antiphlogistic treatment must be employed, some leeches placed upon the belly, and afterwards hot poultices continued there, care, of course, being taken that there is not too great loss of blood. Or the turpentine epithems or mustard poultices may be used, at the same time that, here as in the other case, emollient enemas, containing a small quantity of opium, must be administered; small doses of nitre and the tincture of hyoscyamus, in mucilage, given internally, and milk diet alone ordered. In some of these cases, when symptoms break out supposed to indicate "ramollissement" of the stomach, M. Dubois advises the application of a blister to the epigastric region, and M. Bouchut remarks that the procedure is often crowned with success. I confess, to young children I prefer the application of turpentine epithems and mustard poultices, and the internal administration of soda and hydrocyanic acid in infusion of calumba or caraway-water.

It is not, however, often that you will be called upon to treat entero-colitis by loss of blood and other depletory measures. You have a child suffering this disease brought to you, already in a condition of marasmus, with persistent discharges of a thin, watery, green matter; perhaps has had diarrhœa for a month before; and these, and other symptoms I have already dwelt upon, tell you it is labouring under entero-colitis, or, at the least, under such a bad form of catarrhal diarrhœa that stopped it must be as soon as possible. You will lose time here in trying the more simple remedies I have before alluded to, and so, after paying all attention to the diet and general regimen of the child I before advised, you will order the one or other of the following remedies:—

℞. Plumbi diacetatis, gr. ij.—iv.; confect. aromat., ʒss.; tinct. hyoscyami, m. v.; mucilaginis acac. gummi, ʒij.; infusi gent., ℥j.—ʒvj.; sumat. ʒj. aut ʒij. post singulas sedes liquidas.

℞. Argenti nitratis, gr. j.; acidi nitrici diluti, m. vj.; mucilaginis acac. gum., syrupi, aa. ʒvj. sumat. ʒj. 4ta quaque hora.

You may give these doses to very young children. I have given a teaspoonful of the first and weaker formula to a child six months old; the latter, to one a year old. I dare say I may have ordered them much earlier, though I have no note of such by me; but of the ages I mentioned I retained the prescriptions. As to choosing between them, I would advise you to follow this general rule:—If the patient be below ten or twelve months of age, try the weaker lead mixture first; if the child is above that age, and the diarrhœa very severe, begin at once with the silver. I must say that I know nothing like the argent. nit. for stopping the diarrhœa, even if it does no more; but I think it does far more than this: it appears to me to alter the general assimilative functions. This drug is largely given in the French hospitals, both by mouth and by rectum. In the form of injection, Trousseau recommends from one-sixth of a grain to two grains, according to the age of the child, dissolved in distilled water and syrup, and then injected in as much as ten ounces of fluid, for a child above two years of age. He says a smaller quantity of fluid should not be placed in contact with the surface of the colon; and, in order to ensure the proper action of the injection, the intestine should first be cleared out with a lavement of common water. In mild cases he recommends one injection a day for three or four days; but in bad ones it may be repeated twice in twenty-four hours. I have not yet employed these injections, having confined myself to those of starch, with catechu, or with the tincture of opium, but of the value of the salt of silver given by mouth I can assure you, from experience. Combined with these measures you must use either mustard poultices or turpentine liniments to the abdomen, and afterwards fomentations, together with the occasional aid of the warm bath. Boiled milk and ground rice for older children, isinglass pap for younger ones, will be, as a general rule, most advisable.

I see that, in the 6th vol. of "Ranking's Abstract," there is a condensed report of the success which various practitioners have met with from the use of the nitrate of silver in the diarrhœas both of adults and children; and, if you will refer to page 58 of the work in question, you will find some available hints as to its administration. I may just remark that I have lately had a case in which, although the mere discharge from the intestines did not seem to be very much influenced by this drug, even though two grains had been taken, yet under its use the appetite returned in a remarkable manner, the child gained strength, and was stated by the mother to be a great deal better. I dare say I shall find that, under the tonic influence of the drug, the intestinal exhalations will, however, gradually diminish in quantity. Generally I find that the nitrate has at once a marked effect upon the latter.

Of course you cannot expect always to be successful, and you will meet with cases in which the diarrhœa will not stop, and the child will still dwindle away. You cannot in such go on continuously with the lead or silver; and, if you do not see reason for at once passing to the true tonics, you had better add the chalk mixture, with aromatic confection, and with catechu or opium, not forgetting the injections of starch, &c., and the local applications I have alluded to. There is another practice which I can advise you to adopt in some cases, more especially those which have remained rather obstinate to other remedies, and in some of those doubtful cases of true inflammatory character: this is to give small doses of the neutral salts after you have given an emetic, and whilst you continue at bedtime a powder of one or two grains of ipecacuanha and rhubarb. Part of this practice is recommended by Trousseau, in what he calls bilious diarrhœa. You may use either the double tartrate of potassa and soda, phosphate of soda, sulphate of magnesia, or sulphate of soda. In the lienteric forms of the disorder, this experienced practitioner highly vaunts the employment of common salt, not exactly to stop the diarrhœa, but to alter the composition of the blood—occasionally a primary, but more frequently a secondary, alteration upon the intestinal irritation and discharges. These remedies are not to be given in purgative doses, but in what we may rather call alterative and antifebrile ones—from ten grains up to ʒj., according to the age of the patient—and frequently repeated. Trousseau, in speaking of the use of common salt, says, "Be cautious, however, gentlemen, how you order this substance in private practice. The absurdity of the public in these matters is such, that the prescription would most probably be treated with contempt, but if you order the mineral waters of Homburg, Kiessingen, or Niederbrunnen, in which this salt is really the active element, the therapeutic action will be the same, and you will preserve the confidence of your employers, which a more candid prescription would most probably have deprived you of."

Many cases will come before you in which the general symptoms may be said to predominate over the local ones—in which the marasmus and debility will attract more share of alteration than the mere diarrhœa will. It is in these cases that — whilst you do not neglect the diarrhœa, always bearing in mind how important an intestinal alteration is at the basis of everything—you will find the immediate recourse to the true tonics in particular combinations so useful, whilst at the same time you keep up counter-irritation on the abdomen.

I have found the union of the iodide of potassium with the disulphate of quina exceedingly beneficial.(a) You may give, also, the wine of iron, or the compound tincture of cinchona, or the syrup citrate of quinine and iron.

Not only will you have to employ the tonics, but you will be frequently called upon to order direct stimulants, in treating the various forms of the diarrhœa of children. You will have a child brought to you, who has had urgent and continuous diarrhœa for two or three days, the powers of life being completely knocked down, the face and extremities are pale and cold, it lies in a state almost of stupor; in fact, you might think it labouring under disorder of the nervous centre, and such a mistake has often been made. Such a child presents the evidencies of what I before called hydrencephaloid disease. (b) Any other treatment than a stimulating and supporting one would be fatal. In such a case you must order a few drops of brandy to be given in some milk, at once, and repeated again in half an hour or an hour, if necessary, at the same time advising the mother to make some strong beef gravy, such as I before told you of, and give the child a spoonful of it frequently. Chalk mixture, combined with a few drops of ether, and of the aromatic spirit of ammonia, and the compound tincture of cardamoms, or to older children the sesquicarbonate of ammonia in infusion of cascarilla, should be given internally, whilst the injections of starch and opium I have formerly spoken of be administered too. Such cases as demand these measures are undoubtedly serious ones; but you will constantly meet with others in which, from the great debility, pallor, and coldness, it will be advisable to combine the aromatic spirit of ammonia, or the tinct. cinchonæ c., with the chalk mixture you are giving, and to impress upon the mother not to let the child starve. These are cases not so serious as the former, but which will demand, nevertheless, the use of a stimulant.

In concluding this subject, I shall say a few words upon some remedies, which I have not dwelt upon, which have been praised here or on the Continent. Rilliet and Barthez recommend the injections to be varied with the extract of ratanhy, tannin, alum, and decoction of walnut leaves, &c.; a syrup of ratanhy to be given internally, and especially the pernitrate of iron, in a mucilaginous julep. They state they have also employed the chlorhydrate of gold, ferruginous chocolate and bread. The trisnitrate of bismuth is also thought well of by them.

Pommer, Herst, and Camerer recommend the hydrochlorate of iron where intestinal ramollissement is suspected. Trousseau and Pidoux ad-

(a) See *Medical Times*, vol. xvi., page 303 *et seq.*

(b) See *Medical Times*, vol. xvi., page 426.

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vise in certain cases the sesquicarbonate of soda, or the carbonate of lime, to be mixed with the child's diet milk. Many of the Germans think highly of calumba and cascarilla, whether in the form of infusion, decoction, or of extract. Barrier advises soap in "follicular diacrisis coexisting with ascescency;" and Trousseau mineral baths containing from two to six ounces of the sulphate of iron, sulphureous or aromatic baths, with decoction of sage, lavender, and rosemary. He places, also, confidence in the extract of monesia internally, and of the ammonide of copper in the form of injection. The sulphate of copper combined with opium for elder children, and the tincture of the sesquichloride of iron and sulphate of zinc for younger ones, have been employed as astringents by some British practitioners.

ON THE PHYSICAL PHENOMENA OF LIVING BODIES.

By Professor MATTEUCCI, of Pisa.

(Concluded from p. 233.)

PART XVIII.

VISION.

The faculty of distinct vision at all distances must accordingly be referred to certain peculiarities in the constitution and structure of the eye. The several media of the eye were within lately compared to an apparatus composed of lenses with regular surfaces, and having their respective axes in the same line, represented by the axis of the eye itself. Upon this hypothesis, all the luminous rays emanating from any given point of an external object must converge on a distinct and separate point (*focus*) of the retina, and the latter be placed in a manner to permit the formation upon its surfaces of the several *foci* corresponding to the different points.

But we know that the distance at which a refracted image forms from the refracting apparatus varies with the distance at which the object itself happens to be placed from the latter. To sustain the hypothesis of a compound system of lenses, physiologists were, accordingly, constrained to attribute to certain parts of the eye peculiar dispositions and faculties to counteract the effects of this displacement of the image, and thus to maintain the distinctness of the impression produced upon the retina.

Various hypotheses were suggested in this respect:—

1. Some physiologists attributed to the transparent cornea the faculty of varying in convexity in a manner to remedy the displacement of the image. But observation has demonstrated that the curvature of the cornea is constant and invariable.

2. Others attributed to the crystalline lenses the faculty of contracting, and also of varying, in convexity. This hypothesis, however, is altogether unsupported by fact and observation.

3. Reasoning upon the fact that the pupil dilates or contracts with the recession or approach of the object, some physicists suggested that the rays emanating from distant objects might pass through the less strongly refracting edges of the lens, whereas those emanating from objects placed nearer to the eye might pass through the more powerfully refracting central layers of the crystalline lens. We need not demonstrate here how far from full and satisfactory this attempted explanation is.

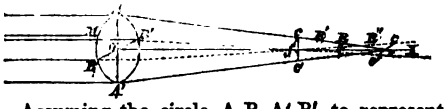
4. Some physiologists attributed to the crystalline lens the power of altering its position in the interior of the eye. This hypothesis, likewise, is altogether unsupported by fact; and it would, moreover, be exceedingly difficult to conceive the possibility of a change of position of the crystalline lens.

5. Lastly, it has been suggested that the contraction of the muscles of the eye, and the pressure upon that organ resulting therefrom, may suffice to lengthen or shorten its axis at will, and thus to bring the retina incessantly into the proper position to receive the distinct impression of the external object. But this, again, is a mere hypothesis, without any tangible reasons to support it.

The fact of distinct vision at all distances remained thus wholly unaccounted for, and appeared likely to baffle all attempts at explanation, when STURM succeeded to place the question upon its proper ground, and to demonstrate that the failure of all former attempts was simply referrible to the fallacy of the hypothesis of a system of compound lenses.

According to the admeasurements taken by Chossat on the eye of an ox, the anterior surface of the cornea is a segment of an ellipsoid of revolution round the major axis of the ellipsis represented by the horizontal section of the cornea; the surfaces of the crystalline lens are respectively segments of two ellipsoids of revolution round the minor axis of their respective generating ellipsis; each of these two generating ellipses having a different length of axis. Moreover, the respective axes of these three generating ellipses of the surfaces of the refracting media of the eye do not coincide with the axis of the eye, nor with each other.

Whence it follows, that instead of assimilating the optical apparatus of the eye to a compound system of spherical lenses with perfectly coincident axes, we must, with Sturm, look upon this organ as "composed of several refracting media, separated by surfaces that are not strictly spherical, nor have the same axis in common. Sturm has demonstrated that, the composition of the eye being such as just now given, the pencil of luminous rays falling upon the cornea from a point situated in a line with the axis of the eye, could not be refracted in a manner to make the whole of the rays converge in a single focus. The way in which the rays are actually refracted is very different from what was formerly assumed to be the case. The subjoined engraving will illustrate this.



Assuming the circle A B A′ B′ to represent the opening of the pupil, and O X the axis of the eye, let us suppose a pencil of rays parallel to the ocular axis falling upon the cornea.

There will be two planes (A O A′ and B O B′). All the luminous rays contained in the plane A O A′ will converge upon the axis in a focus, F, and all the rays contained in the plane B O B′ will converge upon the axis in a focus, *f*. The distance between F and *f* we will call "*focal interval.*"

Let us draw at F a line (C C′) perpendicular to the axis, and extending from the prolonged ray B *f* to the prolonged ray B *f*′, and at *f* another line (*c c*′), likewise perpendicular to the axis, and extending from the extreme refracted ray A F to the extreme refracted ray A F′.

If now we assume a luminous ray traversing the pupil at any given point (M, for instance) between A O A′ and B O B′, this ray will not encounter the axis of the eye, but be refracted in a manner to bear both upon *c f c*′ and C F C′. Whence it follows that a pencil of light that falls upon the surface of the cornea parallelly to its axis will be refracted in a manner to form throughout the whole extent of the focal interval F *f* a very restricted and contracted pencil surrounding the axis on all sides, and terminated by an oblique surface very close to the axis.

The retina is placed between F and *f*, let us suppose at R. The refracted pencil describes accordingly on the surface of the retina a very small ellipsis round the axis, and within this ellipsis are collected the whole of the rays that have traversed the opening of the pupil.

Hence it follows that the rays emanating from a luminous point placed before the eye do not converge in a single point of the retina, but are distributed over a very minute surface of the latter, comprised between the points at which the extreme rays of the luminous fasciculus concentrated around the axis in the focal interval intersect the retina.

Now, if we suppose the external object to recede from, or to approach, the eye, the focal interval will experience a corresponding change of position, so that the position of the retina will change from R to R″ or R′, remaining always comprised between F and *f*. The pencil of light concentrated around the optical axis in the focal interval will, accordingly, invariably strike the retina, and the surface of its intersection with the latter will be so little modified that the impression will not experience any perceptible alteration, and the image preserve its distinctness.

What we have said here of an isolated luminous point applies to every one of the points of the luminous object before the eye.

This new theory of the course of the luminous rays through the refracting media of the eye accounts fully and satisfactorily for the important and apparently so inexplicable fact of distinct vision at all distances.

Long-sighted persons see objects distinctly at a distance of two or three feet. The cornea of their eyes is less convex than it is in the perfectly sound eye. This defect of the sight is a concomitant of old age, when the secretions of all tissues decrease. From this flattening of the cornea, the focal interval of the rays emanating from the point of distinct vision for the perfectly sound eye would fall beyond the retina; long-sighted persons are, accordingly, obliged to distance the object so as to make the image fall upon the retina. In individuals labouring under this defect we find the pupil habitually contracted, as if they were making a continual effort to use only the centre of the crystalline lens. To correct this defect, convex lenses are used, which serve to diminish the divergence of the rays previously to their entrance into the eye. The rays emanating from an object placed at the ordinary visual distance are deflected by these convex lenses in a manner to throw them properly upon the retina, just as if the object were placed at the exact distance at which long-sighted persons see distinctly.

The other defect of the sight—near or short-sightedness—arises from the opposite cause, viz., over-convexity of the cornea. Where this is the case, the focal interval of the rays emanating from the point of ordinary vision falls before the retina. Short-sighted people use accordingly divergent or concave glasses. These concave lenses increase the divergence of the rays previously to their entrance into the eye, and thus objects placed at the ordinary point of distinct vision are seen under the same divergence as if they were placed very near to the eye. The concavo-convex glasses, or Wollaston's periscopic lenses, correct these defects more effectually than the ordinary lenses. Concavo-convex glasses being necessarily thinner than the common spectacle glasses, they absorb a less proportion of light, and the objects seen through them appear more distinct.

The achromatism of the eye, which is perfect for objects placed at the distance of distinct vision, may be ascribed to this, that the pencil of light concentrated around the optical axis, and which falls upon the retina within the focal interval, contains rays of every colour in too limited a space to permit the separate and distinct formation of the coloured bands.

It is indeed a well-known fact that where very minute spaces only intervene between images of different colour or intensity on the retina, these images are no longer perceived separately.

And, even though we may not be able to designate the actual cause of the achromatism of the eye, yet this much must be conceded, that we find in the structure of the organ that variety of curvatures and of refractive and dispersive power of the various media that constitutes the principal condition observed in the construction of our achromatic optical apparatus.

How are we enabled to judge of the position, distance, size, &c., of an object, and of its relations with surrounding objects? What is the office of the two eyes?

In the preceding passages we have endea-

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voured simply to establish the fact, that the image of an object is formed on the retina, that this image is distinct but inverted with respect to the object seen, and that these phenomena are independent of the distance which may happen to separate the object from the eye. However, the mere production of this image on the retina is not in itself sufficient to constitute the *perception* of the object: this ensues only when the modification experienced by the retina is transmitted to the brain through the agency of the optical nerve. But how does vision result from the modification produced upon the retina by the luminous rays emanating from external objects? The first question that calls for examination here is the position of the external objects; with the metaphysical part of the subject we will not meddle.

Much has been said and written to explain how it is that the images on the retina are inverted with regard to the objects which they represent: we perceive these objects *erect*, and consequently inversely to their image on the retina. In our appreciation of the position of bodies we simply compare the position of their several parts relatively to surrounding objects; otherwise, the words *erect* and *inverted*, as applied to objects, would have no meaning. To our perception, a man is in an erect position when his feet are on the ground, and his head furthest removed from it; and the inverted image formed in the retina does not alter in the slightest degree the respective positions of the several parts of the body relatively to the earth.

There are several ways to estimate the distance and size of objects. Were objects placed at a uniform distance, and always equally illuminated, we might measure their size by that of the image depicted on the retina; the demensions of that image may generally be considered proportioned to the visual angle formed by drawing two straight lines from the extremities of the object to the centre of the retina: we call this the *apparent size* of objects. To enable us to estimate the distance of objects we have the consciousness—

1. Of the movements made by the eye, that the luminous cone transmitted from the external object to the pupil, and which is more or less divergent, according to the greater or less distance of the object from the eye, nay, from its focus on the retina.

2. Of the movements by which we endeavour to bring the optical axes of the two eyes more or less near to one another, to make them converge upon an object placed at different distances. With objects placed at great distances, however, this mode of estimating the distance fails, since the two axes being in such cases directed nearly parallel to one another, we are liable to optical illusions. Thus, for instance, if we look down a long avenue of trees, the two rows seem to approach more closely to one another in proportion as the distance increases. The same phenomenon is observed in long galleries.

The intensity of the light which we receive from an object, and which diminishes in proportion as the distance increases, affords us another means of estimating distances; here it must be borne in mind, however, that the atmospheric variations, tending incessantly to vary the quantity of light received by objects, render this means of estimating distances rather uncertain. Lastly, to determine the *actual size* of objects, placed at a greater or less distance from us, we have recourse both to an estimation of the distance and to the *apparent size* of the object. Erroneous estimation of distance leads frequently to illusions in our estimate of the actual size of objects. These illusions will occur more particularly in faint light, or comparative darkness. Phantasmagoria is a familiar instance of this kind of illusion.

What is the respective office assigned to the two eyes in the act of vision? The images of objects placed at a considerable distance from our eyes are identical in both eyes; the act of vision is here effected as if the two eyes formed one, the two optical axes being under such circumstances sensibly parallel. That the impression produced by an object seen with both eyes is single, and not double, is simply the consequence of an intellectual act which, from habit, we perform with inconceivable swiftness.

We will here pass over the theory of a semi-decussation of the optical nerve, by means of which Wollaston endeavours to account for the unity of vision; and also over Wheatstone's experiments with the stereoscope, and proceed at once to the consideration of one of the most curious phenomena of vision—viz., the persistence of the impressions received by the retina.

Look at a piece of burning charcoal in rotatory motion: if the motion be sufficiently rapid, you will fancy you see a luminous circle. It is obvious that this illusion can be accounted for only upon the supposition that the sensation produced by this luminous body persists a certain time, of which the deviation may be estimated by the space of time in which the revolving coal will regain a given position: in this way the coal is seen simultaneously at all points successively traversed by it. The apparent augmentation of volume of a cord in vibration, the disappearance of the spokes of a rapidly-revolving wheel, the luminous train of shooting stars, the white colour presented by a revolving disc painted with the seven colours of the spectrum—these are all phenomena dependent upon the same cause, the persistence of the impression produced on the retina. Look fixedly at a strongly-lighted object, and then close your eyes, and you will still continue to see the object you have been looking at. Some ingenious toys (Thaumat ropes) have been constructed upon the principle of the persistence of the impressions made upon the retina. We are, however, constrained here to confine ourselves to a mere allusion to these toys, and equally so to Himé's apparatus for measuring the duration of the impressions made upon the retina.

Plateau, who has studied this subject with great care and attention, found that, to produce a perfect impression, the light must act a certain time upon the retina; that the total duration of the impression is the same for all colours, and may be estimated approximatively at 0''.34; that the impression preserves the same degree of intensity the longer the less intense the light that produced it; that the divers rays of different colours present certain differences in this respect (thus, for instance, the impression lasts longer for blue rays than for red rays and white light); and lastly, that the total duration of the impressions is the more persistent the more intense the light, and the more protracted its action. Besides this persistence of the impressions received by the retina, there are some other and no less curious phenomena of vision. Look fixedly at a coloured disc placed on a black ground; after a time remove your eyes suddenly and cast them on a white ground, and you will fancy you see a disc of similar shape to the one which you have been regarding, but presenting a colour *complementary* to that of the latter. Thus, if the disc you have been looking at happens to be red, the imaginary disc will appear green; if the former happens to be yellow, the latter will appear violet, &c. These illusory impressions have received the name of *accidental* colours. According to Plateau, these impressions cease after having presented a singular series of phenomena: thus, it would appear that after a certain time the imaginary disc with the complementary colour gives place to a similar image presenting the true colour of the actual disc, but less intensely marked; this, again, vanishes, and is replaced by the image with the complementary colour, but also less distinctly marked than at first. The images continue thus to disappear and reappear alternately, growing all the time more and more faint, until the impression finally vanishes.

These accidental colours form combinations with one another, and equally with the actual colours.

In conclusion, we have to offer a few remarks on the accidental colours observed to form around objects whilst we are looking at them. If we look for a certain time at a coloured object, placed in the centre of a white board, we see a halo formed around the object—a complementary colour to that of the latter. Place a coloured leaf, with a strip of white paper pasted upon it, near a window, so as to throw a strong light upon it; look steadily at the leaf, and the strip of white paper will speedily appear to your vision invested with the complementary colour of that of the leaf. All strongly-lighted white bodies appear of larger dimensions than black bodies of equal size. All these facts prove clearly that every impression produced upon the retina is surrounded with an accidental halo, and that the excitation extends, accordingly, beyond those points of the retina where the image is formed.

These principles find important applications in all the arts in which coloured objects are employed. We are indebted to M. Chevreul for a most valuable treatise on this subject.

ORIGINAL CONTRIBUTIONS.

THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

By GEORGE COBBE (Author of "A Popular Treatise on the Kidney," &c.), of the Middlesex Hospital.

(Continued from page 213.)

CLASS II.

DIVISION I. *Thoracic Derangement; Countenance dusky.*

From Pneumonia.
" Pleuro-pneumonia.
" Œdema pulmonum.
" Emphysema pulmonum.
" Œdema pleuræ (hydrothorax).
" Asthma.
" Bronchitis.
" Endo and exo carditis.

In the preceding papers allusion has been made to the scientific writings of Sir Charles Bell, in that department of his profession which is still, and will long remain, the theme of admiration, both amongst physiologists and artists—I mean especially that extraordinary work on "The Anatomy of Expression," in which the author has thrown together the various facts in elucidation of the above subject, and which I have had the gratification of hearing from his own lips in former days, whilst he held the office of senior surgeon to this hospital.

If it is laid down as an axiom that "the study of physiognomy consists in the exercise of tact and judgment in searching for, in fixing, and in classing the external signs of the internal faculties, in discovering the causes of certain effects by the features and movements of the physiognomy,"(a) then Sir Charles Bell has advanced some steps beyond this point, and has demonstrated most clearly that the muscles of expression peculiar to the human face are not only muscles of respiration, but are also peculiarly subservient, in this lord of the creation, to that instrument, the human voice: so that speech or language, a plaintive cry or an angry tone, weeping or laughing, hallooing or whispering, are, one and all, so intimately bound up in their several actions with the respiratory system, that it is utterly impossible to study the general physiology of respiration without at the same time entering fully into the collateral study of expression, of voice, and of language.

When this department is viewed by the medical physiognomist, under disease, what an extraordinary field for observation, for diagnosis, for prognosis, and, above all, for treatment of disease, does it not open to the mind of the practitioner!

But I shall here take the liberty of quoting the language of Sir Charles Bell's relative and successor in this hospital, from a little work recently

(a) Lavater, *oper. cit.*

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published, and written with his usual clearness and peculiar talent, in the following words:—

"In man the organ of breathing is constructed in such a manner that, besides ministering to the oxygenation of the blood, its primary office in the economy, it is the instrument of voice and of expression—two properties which bear relation to his intellectual nature. In order to adapt the organ to these endowments, it is necessary that the mechanism should have a form and arrangement distinct from that in the lower animals, where it serves for purifying the blood alone; and, as a correspondence always exists between the structure of the moving parts of the frame and the nervous system which regulates their actions, the change in the construction of the organ is accompanied with a change in the arrangement of the nerves. Accordingly, by comparing the nervous system in the inferior animals with its order and distribution in man, the author (a) found that a distinct class of nerves is appropriated in the human frame to the organ of respiration, and to that class he gave the name of 'respiratory system.'"(b)

"The tract or division of nervous substance from which these respiratory nerves originate, is distinct from those which give off the roots of the spinal nerves and fifth cerebral nerve," the latter being wholly a motor and sentient nerve, bound up together in the same manner that the ganglionic and non-ganglionic nerves pass off from the spinal cord to minister motion and sensation, respectively, in their varied distributions over the body. But these respiratory nerves, in passing out to the body, course, in a radiating manner, to parts of the head, neck, and chest, where nerves of the former class (motor and sentient) are already plentifully distributed. When we examine the structures thus supplied, we perceive that they enter into the formation of the organ of respiration. Mr. Shaw, therefore, states that Sir Charles Bell styled these nerves "superadded," or "respiratory." (c)

It cannot be too strongly insisted upon that, if the student in medical physiognomy is desirous of arriving at any accurate and useful knowledge in this most important branch of semeiology, if he seeks to read disease, and the seat as well as the nature of that disease, in the varied and ever-varying shades of expression depicted in the invalid's countenance, he must first study the admirable work of Sir Charles Bell, already referred to, and carry his mind, his thoughts, and his knowledge to the sickbeds of an hospital, where he will be astonished to see the power of the language of expression in disease, the truth of that language, and its steady character under all circumstances. When he has obtained a knowledge of the outlines of the anatomy of expression, and has seen them thus depicted in the human face, he may realize them in the same way that an artist does who places himself before a mirror, and throws the passion of rage, grief, or jealousy into his countenance; thus let him seek all occasions of storing his mind with images of human suffering in disease. He should study the countenance of a patient where anguish is strongly depicted, as in an individual labouring under some cardiac and pulmonary congestion; and from thence let him turn to another, in whom the character of the disease is equally marked, though it is thrown upon the face in a manner totally opposite to the first instance, as is the case with scrofulous disease of the brain, or tubercular softening in the lungs. But it is not expression only that the medical physiognomist has to observe: there is a department in this branch of clinical study which no physiologist can explain, and which no artist can depict; but which experience, and experience alone, at the bedside will enable the mind to seize, to store up, and make use of in forming an accurate diagnosis of the disease which is the subject of study. This additional branch, then, is the shade, the colour, the tint, the hue, the cast, in short, the *tout ensemble* of the face, as it would be viewed by an eminent artist who was about to paint a likeness, wholly irrespective of its being the portrait of sickness or of health.

"But the chief use of the portio dura," observes Mr. Shaw, "is to associate the muscles of the lips and of the nostrils, the two external orifices of the air-tube, with the rest of the organ of respiration; but it fulfils other duties at the same time: its branches which descend upon the neck, and those which go to the orbicular muscles of the eyelids, control movements connected with disturbances in the venous circulation, produced in certain excited states of the respiration." It is a difficult, but, at the same time, an interesting question to consider how far these various movements of expression in the face, under disease, influence the shades and tints of colour which are read in the countenance of a patient labouring under some painful disease of the respiratory system. There is certainly an *expression*, as well as a *colour*, peculiar to the physiognomy of a patient labouring under emphysema pulmonum, or under effusion of lymph into the pericardium. The colour and the expression, though closely allied in both diseases, are nevertheless distinguishable by a practised medical physiognomist. The same observation may be made respecting the *expression* of pneumonia, and the *tint* which that disease throws over the countenance.

Mr. Shaw most ingeniously explains the action of the respiratory muscles in modifying the flow of blood to and from the brain; and obscrves that these muscles "compress the large veins when the chest is contracted, and when there is a tendency to regurgitation of the blood; and that they take pressure off from them when the chest is expanded and the channel to the heart is free. The orbicularis muscle acts in compressing the eyeball whenever the chest is violently contracted, as in coughing, &c.; by that means it closes the veins at the back of the orbit, and prevents engorgement of the fine branches which ramify on the delicate coats within the eyeball."(a)

Now, whenever the flow of blood is tardy in its course through the venous trunks of the head, neck, and chest, as it occurs in emphysema and asthma; and, moreover, when, from this cause, there is a tendency to congestion in the circulation of the vessels of the eyeball, and consequent pressure upon the delicate coats of this organ, we always find that the globe is prominent, the eyelids wide open, and the brows raised, in order, as I imagine, to preserve the tissues of the eye from any undue pressure, and to enable the blood to pass out of the orbit with more freedom than it otherwise would do. You may read this venous congestion in the *expression* of the eye. I say expression, because in such a state of pulmonary derangement the eye is staring, and, whilst the individual converses, the neck is straight, the head is inclined backwards, the brows are raised, the nostrils dilated, their angles drawn upwards and outwards, whilst the voice is shrill and dissonant, so that a shrewd observer may readily conjecture that emphysema exists in one or both sides of the chest.

Who does not notice these peculiarities of physiognomy in a person who hastens into your presence, breathless and eager to communicate some important information? If a medical physiognomist was requested to draw the portrait of a patient labouring under bronchitis, or an attack of asthma, would he not throw the above peculiarities into his picture? Whilst the opposite cast of expression, namely, the overhanging and knitted brows, the head bent forwards, the half-closed eyes, the retracted nostrils, and the mouth slightly open, with its angles drawn downwards, exhibit that languor of expression peculiar to cerebral distress or disease. In the first instance you meet with increased circulation in the face, hence there is a dusky blush, or a dull tint, thrown over the countenance; whilst in the latter portrait you observe only a dingy, greasy hue, with little or no distinct *shade* of colour in it.

Some time ago I was spending the evening at a friend's house, when a new servant girl, who had arrived that day, entered the room with the tea service. She was a round, flabby-faced maid, with those peculiar fresh-coloured cheeks which border occasionally upon a purplish hue or brickdust red, and which are thrown into an intense blush by the least mental excitement. Her shoulders were slightly raised, and she had a large, bold, and staring eye; the lips were thick, the nostrils dilated, and the whole thorax rounded.

The lady soon afterwards said, "What do you think of our new maid?" I replied, "She looks weak in her chest, and, if I were to pass a judgment upon her health, I should think that she was asthmatical." In the course of another week I heard from her mistress that she had merited a scolding, and that her face assumed a deep purplish tint, and that her breathing was laboured, like the braying of an ass, as she was trying to cry. This induced me to watch her narrowly whilst she was bustling about her occupation, and I could plainly notice that the girl was asthmatical. On being interrogated, she acknowledged that she was habitually very short-breathed, and that her sister was occasionally almost choked for want of breath, and was obliged to send for the doctor, and that neither of them, all their life, could run without difficulty of breathing.

Since the above period I have seen many well-marked instances of the same character of face: one in a young woman of eighteen, and another in a girl of fourteen; and in both of them there were unequivocal signs of congenital asthma. Other examples might be also adduced to show that the peculiar *colour* of the countenance and flabbiness of the cheeks are more or less connected with some impediment to the course of the venous circulation in the vessels of the neck and chest. This congenital dyspnœa, I apprehend, may be very frequently referred to the imperfect obliteration of the foramen ovale, constituting, in fact, a mild form of cyanosis; whilst the pulmonary disturbance is the *effect* of such cardiac malformation.

There was a night-nurse lately placed in one of our wards who attracted my attention, soon after her arrival, on account of the inharmonious

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(a) Sir Charles Bell.

(b) "On Sir C. Bell's Researches in the Nervous System." By Alex. Shaw, Esq. 1847.

(c) In order to impress the subject upon the reader's attention, I must be allowed to observe that the following nerves control the respiratory system:—

"A. The portio dura, or motor nerve of the face, arising from the medulla oblongata, close to the origins of the nervus vagus, the glosso-pharyngeal and spinal accessory nerves, included in the respiratory class, gives no branches to any of the muscles of the jaw, and is, therefore, *not* a nerve of mastication. Its branches pass off as follows:—

1. Frontal branches to the muscles of the forehead and eyebrow.
2. Branches to the eyelids.
3. Branches to the muscles which move the nostrils and upper lip.
4. Branches to the lower lip.
5. Branches going down upon the side of the neck.
6. Connections with the cervical spinal nerves.
7. A nerve to the occipital portion of the occipito-frontalis muscle, and to the muscles of the ear.

B. The nervus vagus, or grand respiratory nerve.

C. The spinal accessory nerve.

D. The ninth nerve, motor nerve of the tongue.

E. Diaphragmatic nerve.

F. Branch of the sympathetic nerve.

G. Superior laryngeal nerve, a branch of the nervus vagus.

H. Inferior or recurrent laryngeal nerve, a branch of the nervus vagus.

I. Glosso-pharyngeal nerve." — (A. Shaw, Esq., *oper. cit.*)

(a) On the Nerves, by Alex. Shaw, Esq.

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and unequal tone of her voice. I was inquiring into the condition of a patient in the ward, when her answers were given with that peculiar absence of symphony which is observable in a lad whose voice is just breaking at the age of puberty. The feeble light of the room would not allow me to pursue the study of the physiognomy of her health until the morning, when I took an especial occasion to enter into conversation with her; and, as she spoke, the shrill voice again was heard, the eyes were widely expanded, the brows raised up, the mouth slightly opened in the acts of respiration, the nostrils distended, and the shoulders and neck were thrown backwards. My diagnosis was instantly formed, viz., that she was asthmatical, and that she would never be suited for the work of a night-nurse. I asked her no questions respecting her health, but merely inquired of her day-nurse soon afterwards, an experienced woman, how she did the duty; and her answer was brief but pointed:—"O Sir, she is a very willing woman, but she is so short in her breath that she cannot do any active work whatever, and is, therefore, of very little use in the ward." This convinced my mind that a thoracic disease may be recognised in the character of the voice, as well as in the expression of the face, and in the *expression* of respiration. The hollow, deep tones of voice of a patient with tubercular softening in the lungs must be familiar to many practitioners.(a)

Another practical illustration of the influence of disorder of the lungs over the tone of the voice recently occurred. A man applied here with a dusky face, staring eyes, elevated shoulders, and a barrelled thorax, so that emphysema was discernible in the first glance of his countenance, and after the second or third auscultation of his chest he inquiringly said, "Do you think, Sir, that I am consumptive?" "No," was my reply. For, I should observe, that absence of respiration, clearness on percussion, throughout the chest, could leave no doubt that it was a simple form of ruptured air-cells. "Well, Sir," he added, "I have been told that I am not by other medical gentlemen; but is it not very singular, then, that I can sing as well as I ever could in my life?" "Not at all," I replied, "as you have more wind in your chest than you want, or can get rid of, so that you can afford to spend a little of the surplus in singing," &c. I soon afterwards had an opportunity of hearing him sing, though he was not aware of it, when I noticed that the voice was sonorous and clear, but he could only move it upon one note, in semibreves or crotchets, as in singing "God save the Queen;" but if he came to semiquavers or apogituras, or tried to pass up or down the octave in threes or in fifths, his voice faltered, and he could not accomplish it. In short, his larynx was acted upon in much the same manner that the bass note of a pibrooch is kept going by the accumulated bag of air pressed out from the bellows by the arm; but the voice of such a patient is no more capable of singing an air with fluency and modulation than is the pibrooch in giving the treble notes of a Scotch jig.

Patients afflicted with the above disease will often keep up a conversation in the most loquacious manner, expending three times the number of words *in one expiration* that a healthy person is able to do; so that one might paradoxically say that, although the man is "short of breath," yet he has "more than he wants."

There is another instructive point which the voice elucidates in the formation of a diagnosis of thoracic diseases; and it is the following:—that by your own voice, practised upon the chest of a patient with certain morbid changes in the lungs, you may glean some very valuable information respecting the condition of those organs. Dr. R. G. Latham proposes the classical title of "heautophonics" to this diagnostic help.

But, in order to simplify my meaning, the following illustration may be given:—Let an individual hold a hat in his hand, and, putting his face close to the hollow, let him talk into it for three or four minutes; he should practise this adjoining to a corner of a room where an angle is formed by two solid pieces of wainscot; and, having thus talked, let him suddenly shift his head and talk into this angle of wood, and instantly his voice falls a semitone or more. Let him repeat the experiment both ways alternately, and he will soon satisfy his mind, especially if he has a moderately good ear for detecting variations of sound, that, as he talks into the hat, his voice is raised half a note, and *vice versâ*.(a)

This curious study should be pursued several days, and repeatedly gone over, before the voice can be made subservient to the detection of disease in a patient; but when the ear is pretty well tutored, and can distinctly catch the modification of sounds of one's own voice—whether the individual talks into the air, into a hat, into an angle of wood, or into one of stone—he must then place his ear over the base of the heart of a vigorous, healthy man, and recite some portion in an even and in an audible voice, or, what is preferable, he may count from fifty to one hundred, and then he should carry his ear to the subclavicular region of the right side, and again talk aloud, and he will find that his voice rises nearly half a tone in the latter spot. To pursue this study pathologically, he should now place his ear over the latter spot of a phthisical patient, who is labouring under complete solidification of one of the upper lobes, and once more count upwards, then shift his ear to the lower lobe of the opposite lung, which we will presume is healthy, and count again, and the voice which was bass, resonant, and vibrating to his own ear in the first spot, will become raised or more tenor, less resonant and less ringing, in the latter spot.

The same observation applies also to the alteration of one's own voice when we talk over the solidified lung of a pneumonic patient, who is labouring under that stage of the disease known as red hepatization; whereas, on the other hand, if there is a cavity in the upper lobes, as in phthisis, or a permanently distended lung, as in emphysema, a well-tutored ear will notice that, as he talks over such spots, the voice is imperceptibly raised a barytone, and, *vice versâ*, a semitone. But, again, if the chest is full of fluid, as in dropsy of the pleura, or in empyema, the voice of the auscultator, like the percussion, emits only a "son mat," a dead, non-vibrating, non-resonant sound. These, then, are the fundamental principles of the science of heautophonics, from *εαυτον* (self) and *φωνη* (voice).

During the whole of these studies the patient, of course, is a passive agent, and, therefore, is not required to take any part in the proceedings; indeed, if you begin by catechising him first, as in the usual mode of auscultation, in order to hear his own voice, or his respiration, &c., you will be sadly perplexed by his interruptions when you attempt to auscultate your own voice, through the medium of his chest, if I may be allowed such an expression, as he thinks probably that you are talking to him, and that, therefore, he must get some answers for you concerning his feelings, &c.

By these means the chest of the patient is used as a stethoscope, or is made a medium for auscultating the organs within, through the medium of the voice of the practitioner.(a) If any of my readers are credulous upon these points, let them amuse their ears and exercise their voices upon the chests of half a dozen healthy men, and their scepticism will very soon vanish, for they have no power to control their own alterations of intonation, since they depend upon the greater or lesser conducting power of the surfaces over which the voice is thrown. Of course, if the surface is spongy and loose, like a feather pillow, the conducting power is very small; but if the ear is laid upon a solid oak chest of drawers, the reverberation of the voice through the conducting power of the wood lowers the tone half a note.

In further proof of the utility, as well as of the certainty, of this new method of auscultating one's own voice over a diseased chest, I have frequently requested one of our sharp pupils to listen to the chest of a patient who had unequivocal signs of phthisis. He has satisfied his own mind on which side the tubercular solidification existed. I have then requested him to withhold his opinion from me until I had auscultated my own voice over the two subclavicular regions; and the information which I derived from this source exactly corresponded with the information which he obtained from the voice and respiration of the patient, and we found ourselves simultaneously agree as to the spot where solidification existed.

The foregoing remarks will show that the study of the physiognomy of thoracic diseases has been commenced with what we can hear rather than with what we can see, as the term implies; but, after touching upon it, it is time to pass on to the consideration of the various morbid sounds which are gathered from the chest of a patient who respires and talks under your ear whilst in the recumbent posture. I shall, therefore, proceed to the several helps which the sense of hearing farther affords in the detection and elucidation of thoracic diseases; and, as it is not my intention or wish to discuss subjects which have already been disposed of in elementary works on auscultation, I need not enlarge on a description of the varied sounds given out by the alteration of structure in diseases of the lungs, &c., and the influence the respired air, the voice, and the cough of the patient exert in producing these sounds. I would, therefore, sum up the whole in a short table, known amongst the pupils who frequent the medical wards of this hospital as "The Alphabet of Auscultation."

(To be continued.)

(a) In the Papal States, where every opportunity is taken, and every means are used, to detect and publish the description of persons who travel through the country, the voice is much attended to, and the character and tone of the voices specified in the passports; and by the description of this human sound, man is often enabled to recognise and detect his fellow-man.

(a) It is singular that so many students, and even professional men, should be carried away with the false notion, that a musical ear is essentially requisite for the study of auscultation, whereas the very reverse is so oftentimes the fact, that it is doubtful whether it is of the slightest assistance. There is, at this present moment, one of the brightest ornaments in our profession, as a physician and as an auscultator, who cannot hum the simplest tune correctly, as I have witnessed repeatedly. Mr. Elwin, formerly house-surgeon in this hospital, was remarkably quick in detecting the various modifications of sounds in auscultation, and yet he would often acknowledge that he had not the slightest taste for, or knowledge of, music, not even of the most simple air, such as "Rule Britannia," &c. &c.

(a) This principle is fully understood and acted upon by singers, performers on wind instruments, &c. The presence of curtains, drapery, and much glass in a room, tends to oppress the chest of the performer or singer to a painful degree; and this effect is fully obviated in the construction of those public edifices which are designed for oratory, or for preaching, singing, &c.

CLINICAL REMARKS ON CASES OCCURRING IN OBSTETRIC PRACTICE.

By CHARLES WALLER, M.D.,
Physician-Accoucheur to St. Thomas's Hospital.

ON PLACENTA PRÆVIA.

(Continued from p. 234.)

CASE 8.—Partial presentation. In this case the patient had been under the care of a midwife, who had ruptured the membranes on the preceding day, and then left her. Another woman was sent for in the evening, who also got alarmed at the bleeding, and, like her predecessor, decamped, leaving the sufferer to her fate. A medical man saw her on the following morning, who immediately requested my attendance. At that time the hemorrhage had abated; the pulse,

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though rapid and soft, was not so feeble and faultering as I have frequently witnessed in similar cases: there was a general warmth over the surface, but the countenance was deathy and corpse-like. This discrepancy between the sunken features and the comparatively steady state of the pulse was specially pointed out by me at the time. On introducing the hand for the purpose of examination, the placenta was easily felt lying in the vagina, but no portion of the child; carrying the finger upwards, the presentation proved to be that of both knees. The child was readily drawn down: some difficulty was experienced in bringing the head through the pelvis; notwithstanding the discharge was trifling, the signs of sinking increased. Stimuli were given after the delivery, and there was a slight rally; difficulty of breathing soon followed, and that most distressing state of jactitation so common in cases of hemorrhage. After an interval of about fifteen minutes the pulse fell, the patient threw her head back on the pillow, and instantly expired. The child was also in this instance dead-born. Would transfusion have saved this female? This operation was not overlooked, my instruments were at hand; the bleeding, however, had not been excessive; there was general warmth over the surface, and a pulse distinctly perceptible until just at last, when there was time for nothing. It should also be noted that the female had been the subject of lung disease for a considerable period.

Case 9.—This case was entirely under my own superintendence. Pretty free hemorrhage occurred at the eighth month of gestation. On examination the os uteri was closed, and there were no pains; perfect quietude and attention to the bowels were directed, by which means the bleeding was checked, and did not occur until four weeks had elapsed, when it became much more alarming. On my first visit, the os uteri was long, projecting, and only sufficiently open to admit the point of my finger, at the tip of which a firm fleshy substance could be felt, but not the child, which was very high up. The discharge continued throughout the day in small quantities, and on the following morning had considerably increased: still there was scarcely any dilatation. In the afternoon the os was dilated to the size of a crownpiece, and, as the system began to feel the exhausting effects of the hemorrhage, I determined to attempt the delivery. The placenta was attached around the whole of the os; the hand was introduced and the parts gradually dilated, and then passed through the placenta. The elbow was the part presenting. Version was accomplished with the utmost ease; the child born dead, the mother recovering without an untoward symptom.

Case 10.—Partial presentation. The female about seven month gone, had had several alarming hemorrhages. Her medical attendant, when sent for, discovered the nature of the case, and had seized the feet and brought them into the vagina, where, as the flooding had ceased, he left them. I visited her about ten hours afterwards; there had been no fresh hemorrhage, but alarming faintness had continued for several hours. I thought it better to complete the delivery, in doing which there was great difficulty, for, although the feet had been brought down, the child was doubled, but not turned, and the uterus had contracted forcibly around it. The placenta was naturally expelled, without hemorrhage. After the lapse of four days I was again requested to see her, as there had been no effectual rally, and she was suffering from frequent rigors, followed by heat, but no perspiration. I prescribed calomel and opium at night, with quinine through the day; she appeared to be going on well for three or four days, when a sudden gush of blood took place, and she immediately expired. There was no examination after death.

Case 11.—A case of partial presentation, under the care of Mr. Greaves, who was called to this female at the eighth month of pregnancy, in consequence of alarming hemorrhage. On examination he ascertained the cause. His patient appearing in a desperate condition, my attendance was requested. I found her in a very unpromising state, with a completely blanched countenance, pale and livid lips, cold extremities, laborious respiration, and a pulse scarcely perceptible; the general surface of the body was also cold—in short, everything indicated approaching dissolution. Stimulants had been freely given, but they failed to excite even a temporary rally. The vagina was filled with coagula; and, as the hemorrhage appeared to have ceased, I did not think it advisable to disturb the clots in attempting delivery. Stimulants were again had recourse to, but with no better effect. The symptoms of exhaustion increased, and nothing but transfusion seemed, under these circumstances, to hold out the slightest chance of relief. Mr. Greaves concurring in this opinion, we made preparation for its performance. Our first intention was to have laid bare the vein, and to have had all things in readiness, then to have delivered, and, provided there had been no improvement in the condition of our patient, to have transfused immediately afterwards. A little reflection convinced us that this plan would be fraught with danger, for, had syncope occurred, in all probability it would have been fatal. The operation was, therefore, at once commenced. When about 5 oz. of blood had been introduced, the amendment was evident: the pulse was more perceptible, and the countenance assumed a somewhat better aspect. The blood now flowed very sluggishly from the arm of the female who supplied it; we therefore determined to wait awhile and watch the effects, nourishment and stimuli being administered occasionally. The rally continued for about two hours and a half, when the female again began to sink, and jactitation supervened; gruel, with brandy, was given, without any benefit; the pulse was again but just perceptible, and the body getting cold. I again injected about four ounces of blood from the same individual who had previously supplied it, but this time the symptoms did not improve. The stream issuing from the punctured arm was so languid that it was not thought right to proceed, and a fresh subject was sought to furnish us with a better supply. The husband of the patient, being in the room, came forward to our aid; he looked rather pale, and therefore we gave him a glass of hot spirits and water, and then opened a vein, from which the blood flowed in an impetuous stream. The first injection of about 2 oz. produced a marked alteration in the pulse: it became decidedly perceptible. When 9 oz. had been injected, the countenance was much improved; there was even a slight appearance of colour in the cheeks, and pain in the arm was complained of. Four oz. more were introduced, when all symptoms of immediate danger vanished. There was no faintness afterwards; the surface was warm; the pulse steady, about 100 in the minute; jactitation ceased; and nourishment was retained on the stomach. The only complaint was of excessive fatigue, with an inclination for sleep; there were also a few "grinding pains." I visited her again in about one hour and a half: she had been dozing, and was extremely tranquil; reaction was perfect, and there was no hemorrhage, no tumult in the circulation. I now left the case in the hands of Mr. Greaves, who afterwards informed me that, after a sleep of some hours, the pains increased, and he felt a portion of detached placenta in the vagina; this was expelled by the natural efforts. A dead child soon followed, the remainder of the placenta coming away an hour afterwards, without hemorrhage. The mother recovered.

Case 12.—Complete presentation, under the care of the late Mr. Wilson, to whose assistance I was summoned. The patient had lost much blood; the os uteri nearly dilated. The patient was much exhausted. I instantly turned. Recovery of the mother took place, without one unpleasant symptom. Child died.

Case 13.—Nearly complete. Was requested in this instance to visit a patient of Mr. Dunn, who had been exceedingly reduced by loss of blood, which had occurred at intervals during the preceding ten weeks. For several hours before I saw her the bleeding had ceased, but the rally was not satisfactory. The pulse was feeble and rapid, but distinctly perceptible, and not inordinately hurried; the face and extremities cold and bedewed with a clammy perspiration; there was no power of moving the body; respiration good, with an ocasional sensation of choking; very little restlessness; head light and giddy, with a confusion of articulation resembling that which is observed in an intoxicated person; sickness had been experienced, but it had ceased. On examination, the placenta was felt extending over the os uteri, which was thin and very undilatable; delivery was not, therefore, attempted. The yolk of an egg beaten up with a little brandy, was given, with apparent benefit; the pulse improved somewhat, but the general condition of the woman was anything but favourable. As there was no recurrence of the bleeding I left the house, making an appointment to meet Mr. Dunn again in a few hours, recommending that in the interval nourishment should be freely, though judiciously, given, and active measures adopted should flooding recommence. I soon afterwards received a pressing message, but before my arrival life was extinct. I was told that all the nourishment had been retained on the stomach, that she had slept a little; afterwards labour pains came on without bleeding, that a dead child had been expelled by the natural efforts, and the patient had expired on the very instant; the placenta was still *in utero*.

Cases 14, 15, 16.—The only record I have of these three cases is, that turning was employed; and all the mothers recovered.

Case 17.—Partial presentation. Was requested to see a patient of Mr. Southwood, who was eight months advanced in pregnancy, who had lost blood for several weeks previously, but who was then flooding profusely. Examination detected a partial presentation of the placenta, the os uteri very rigid, the child high in the pelvis, and presenting unnaturally. As the parts were so undilatable I left the patient for two hours, giving a few general directions as to treatment. At this time there was no perceptible alteration in the os; the female began to feel much weakened by the continuance of the discharge. I again left, and was not summoned until about four hours afterwards, in consequence of the hemorrhage increasing. Although the rigidity was great, and the os but little open, I determined, if possible, to finish the labour. The hand passed the os uteri with some difficulty, when the breech was found presenting; the feet were grasped and brought down; the head was detained a little while in consequence of the undilated state of the os, but this obstruction was soon overcome, and a dead child extracted. The mother recovered without any serious symptom; excepting that for a day or two there was excessive reaction, the pulse mounting up to 140 in the minute.

Case 18.—Complete presentation. Met Mr. Blyth in consultation in a case of severe hemorrhage; the patient was much exhausted. On examination, the placenta was felt attached round the whole of the os uteri. Turning was effected with ease. Mother recovered, child dead.

Case 19.—This was also a case of complete presentation of the placenta, under the immediate superintendence of Mr. Eyles. When I first saw this patient, her appearance was most discouraging: she was extremely reduced; pulse very feeble, and countenance perfectly ghastly. I turned the child without difficulty, which was, however, dead. Not a drop of blood escaped during or after the operation, but the general symptoms were not improved. I saw the patient but once afterwards (about four hours after the delivery), when no amendment had taken place; but as there was no hemorrhage, and the nourishment was retained on her stomach, I was inclined to augur favourably as to the result. My expectations were, however, disappointed. Mr. Eyles informed me, that after lingering in the same

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state for four or five days, this lady expired; nature appeared to be completely exhausted, and did not attempt a rally; there was not the slightest reaction.

Case 20.—Complete presentation. Met Mr. Beale in this case. His patient had been seized with profuse flooding, without any decided pains. She had arrived at the full period of gestation, and had never borne a child previously. On examination, the parts were lax, but not much dilated; the os uteri directed very much backwards, so as not to be readily felt; the placenta implanted over it, Although there was but little actual dilatation, the parts were so yielding that, with care, the hand was with facility introduced, and the child delivered; there was slight difficulty in delivering the head. The placenta being retained, my hand was again introduced, and it was brought away. No hemorrhage supervened either during or after delivery; but, although nourishment and stimulants were cautiously given, there was no decisive rally for the space of four hours. Acute hysteritis was set up on the third day, for which the usual remedies were given with success.

Case 21.—Partial presentation. Was requested to meet Mr. Barringer in this case. The patient had lost much blood, the placenta partially adhering to the os uteri, the parts well dilated. Turning was effected, and the mother recovered. The only thing specially mentioned in my notes is, that I experienced much difficulty in finding the feet; all the digital extremities I could feel appeared to be fingers. When the child was born the cause of this annoyance was obvious: the feet and ankle-joints were so distorted, that the characteristic marks were not distinguishable. The mother recovered.

Case 22.—Complete presentation. The unfortunate subject of this case was allowed to bleed to death, even without an examination. When called to her, she was *in articulo mortis*; there was no pulse to be felt at her wrist, and no movement could be felt in the region of the heart, or of the carotid arteries; she still, however, retained her senses to a certain extent; there was great jactitation, and her constant entreaty was, that we should "take away her life," which was already fast ebbing away. Under such symptoms the hemorrhage had ceased, and I did not risk a renewal by making any vaginal examination, but despatched a messenger for my transfusion syringe. Some little time necessarily elapsed, but, as there was still breathing when the apparatus arrived, three charges of blood, about two ounces each, were thrown into her veins; but I apprehend there was not power in the circulation sufficient to convey it onwards, as no effect whatever was produced. The operation was, therefore, abandoned, and in a few minutes the vital spark had fled. I then made an examination, and found the placenta attached all round the os uteri. As there were no signs of life in the child, delivery was not effected. This female had flooded for several days without any examination having been made by her attendant.

Case 23.—Was sent for in this case by Messrs. Powell and Goddard, who informed me the placenta had originally presented, and had been entirely removed; no hemorrhage followed its extraction. The arm presented, and the child was so firmly impacted in the pelvis, that I found it impossible to turn; embryotomy was therefore performed, and the child with difficulty removed. There was no satisfactory rally, and the poor creature died at the end of a week with fever of the low type. I know not whether the presentation was partial or complete.

Case 24.—Mr. Doughty requested my assistance in this case in the early stage of the labour, before serious exhaustion had come on; and the result was most satisfactory. His patient had been bleeding for some hours, and, although her countenance was pale and the pulse rather faltering, there were no symptoms of pressing danger. When I first saw her she was sitting by the fire: there were no pains, and she felt altogether so comfortable that we had some difficulty in persuading her to retire to her bed for the purpose of undergoing the necessary examination. This was at length effected, and the placenta felt encircling the os uteri; a small portion had been detached anteriorly, and through the aperture this formed the funis, which was still pulsating, had descended. The os uteri was considerably dilated; the undilated portion rather firm; bleeding was going on, but it was not excessive. Prior to turning, I detached the placenta entirely from its connection with the uterus, for the purpose of ascertaining whether the hemorrhage would be thereby increased. I thought this a favourable opportunity of testing Dr. Simpson's plan, knowing that, if alarming symptoms came on, I had the labour under my own control. No hemorrhage followed this separation; the hand was carried onward, and the child extracted: although in a state of asphyxia, the ordinary means succeeded in restoring it. The mother had no bad symptom, recovering as quickly as she had been accustomed after an ordinary confinement.

Case 25.—A case of partial placental presentation, with Mr. Beale. Much blood had been lost, but the constitution had not given way; the membranes unbroken; the os uteri considerably dilated. Everything being favourable for immediate delivery, the hand was introduced, the membranes ruptured, and version effected. There was partial adhesion of the placenta, rendering it necessary to separate it with the fingers. As in the former case, the child, though asphyxiated, was recovered by the usual means. Nothing of an unfavourable nature occurred to the mother.

Case 26.—Partial presentation. My notes of this case are not very copious, as they were written in a hurry. It occurred in the practice of Mr. Field. His patient was in labour with her first child; had been suffering from gastric fever for several weeks, and was much reduced by it. When the parturient pains set in, flooding occurred, but not to a very alarming extent. On examination I found the placenta presenting (whether partial or complete is not noted), and without delay delivered her of a living child. Her former malady unfortunately increased, and she died within the month.

Case 27.—A case of partial presentation. The arm presenting; the uterus rigid; the os very partially open. There was considerable hemorrhage. As there was no possibility of turning when I first saw this patient, the placenta was detached, and dilatation waited for. No hemorrhage occurred, and in less than twelve hours afterwards turning was had recourse to, and a dead child extracted. The female recovered from the shock of labour, but died of muco-enteritis during the week, this probably induced by the loss of blood.

Case 28.—A case of complete placental presentation, with Mr. Hall. This was a very interesting case. I saw the patient in the evening of the day, and learned from her attendant that he had been suddenly called to her, in consequence of profuse hemorrhage; she was then just entering upon the ninth month of gestation, and had previously borne children. The bleeding was considerably arrested, and she was recovering from a state of syncope. The vagina was full of clots; the os uteri rigid, and just beginning to dilate; the placenta attached over its entire circumference. Turning was here impracticable; I therefore introduced my forefinger into the uterus, and separated the placenta throughout its whole extent, without rupturing the membranes. After waiting half an hour to ascertain whether there would be any renewal of the flooding, and finding it had ceased, the female was left to her repose. At four o'clock on the following morning labour pains commenced, when there was a very slight discharge of blood. On my visit at eleven the os was fully dilated; the waters had just escaped. On examination the placenta was felt hanging down into the vagina, perfectly separated from the uterus; the feet presented. With a little assistance the child, which was dead, was speedily born, the afterbirth immediately following.

(To be continued.)

NOTICE OF A REMARKABLE DISEASE, ANALOGOUS TO CRETINISM, EXISTING IN A SMALL VILLAGE IN THE WEST OF ENGLAND.

Being part of a communication read before the Royal Medical Society of Edinburgh on Nov. 26, 1847.

By HUGH NORRIS, Senior House-Surgeon to the Royal Maternity Hospital, Edinburgh.

The name of the village in which this obscure malady exhibits itself is Chiselborough, a parish situated near the market town of South Petherton, in the southern part of Somersetshire, with a population, according to the late census, of 540 inhabitants.

It is situated in an extremely small valley, closely surrounded on three sides by hills, about four hundred or five hundred feet in height. Its immediate neighbourhood is densely wooded with orchards; its lowest part is very damp and dirty, and the temperature very mild; it lies partly on each of the hills, which hem it in, as well as in the valley, or "bottom," as it is provincially termed, at their base. It is open only towards the west, in which direction there is a flat of considerable extent, through which flows a deep, sluggish river, the Parrett, approaching by an elbow or bend to within a mile of the village.

In this small place I have ascertained to exist,

I. Four perfect idiots—two male, two female.

II. Seventeen partial idiots—four male, thirteen female. All quite unable to articulate so as to be understood, with memories so deficient as to prevent their being trusted in the simplest affairs of life; though not essentially prone to mischief, yet all requiring constant watching; walking with an uncertain step, and an unsteady, waddling gait.

(Here I would note that *one* instance of the above class is sufficiently trustworthy to be admitted as a servant, in which capacity she has lived during the last fourteen or fifteen years. She is, however, unable to articulate, or walk steadily; has had two illegitimate children, since dead.)

III. Five deaf and dumb. All, I believe, females of this class: two, who have been educated, are said to be possessed of remarkably quick parts; two, uneducated, of moderately quick parts; and one (an aged woman) I have also included in my second class, as being but little removed from perfect idiocy.

(The individuals composing these three classes have *all* an enlargement of the thyroid gland to a *certain extent*, but only one (of Class II.) to a very extraordinary degree.)

IV. To the above I may also add a fourth class, which includes, probably, a majority of the whole population, viz., those with an obvious deficiency of intellect, of more than usually dull perception, or having a very marked impediment in their speech, and I believe, without a single exception, affected with bronchocele.

It may be worthy of remark that the most formidable instances of goitre are to be found in this latter class, and that those possessing the largest tumours are generally subject to epileptic fits.

The appearance of those individuals composing my first and second classes is not that of an ordinarily *accidental* idiot: there is not that indescribable appearance of listless languor, that kind of involuntary, undesigned perpetual motion of limbs and head; nor, generally, that drivelling from the mouth, which affords so pitiably disgusting a sight in ordinary instances.

The personal appearance of these unfortunate beings is exceedingly unprepossessing. The stature short (in one instance, that of a female aged thirty, only reaching three feet and a half), and, in most cases, thickset. Head large, and usually covered with a profusion of very coarse ragged or bristly hair, of a dark-brown colour; limbs bony and exceedingly ill formed. The

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contour of the face is pretty much the same in all the cases I have seen: it is wide and flat, forehead very low, but not, in most cases, *very obviously* receding. Eyes generally (but not constantly) small and sunken. Nose flat, almost like that of a negro. Mouth large, and lips thick.

With this similarity of feature, however, the expression differs in different individuals to a remarkable degree. Some appear to be always laughing, and these are amongst the least ill looking. Others have an expression of constant suffering and patient endurance. A third class gazes on you with a look of utter vacancy; whilst in several instances, amongst the females, I have detected, or fancied I could detect, an apparently habitual peculiar lustful expression of the eye, which, in these cases, has been somewhat larger than common.

The walk of these *cretins* (if I may so call them) is most ungainly, and resembles more the waddle of the duck than the peculiar shuffling step of the ordinary idiot.

They are generally very weakly, but some are capable of considerable bodily exertion.

In character, as far as I can learn, they are usually mild and inoffensive, unless provoked, in which case they are highly dangerous. Their temper is very uncertain; but I cannot learn that they possess any vindictive feelings after the first burst of passion, nor am I aware of their possessing any tendency to commit mischief for mischief's sake, as is the case with many idiots; though their total ignorance of moral responsibility often causes them to commit acts of a mischievous nature, which render it necessary to have them constantly under surveillance.

The very remarkable preponderance of females over males, in the above list, must strike every one, and is a circumstance which would serve to strengthen the opinion that the disease in question is not only accompanied, but in some measure caused, by the presence of goitre, which is well known principally to affect the other sex.

With regard to the sexual development of these unfortunates, I am unable to afford any positive information. Few or none of the females undergo the ordinary more obvious changes in appearance, on arriving at the usual age of puberty; and my coadjutress in making these imperfect investigations (the village doctress, midwife, &c.) assures me that in most of the cases which she has had opportunities of observing, menstruation has been either very deficient, very difficult, or altogether absent; still, some of the worst cases *have borne children*.

In some instances in which the catamenia is absent (in those of two of my informant's children, for instance, who are included in class No. II. of my list) monthly *fits of wildness*, as she expressed herself, occur, during which fits they become more or less (often *exceedingly*) intractable; and this she attributes to the influence of that much-abused planet, the moon.

I have had no opportunity of making any observation as to the sexual development of the male portion of my second class (viz., those who are almost complete idiots), there being but four; but of my fourth class I may state that many of the very worst contained in it, men who would be deemed imbecile elsewhere, find women, with no very obvious deficiency of mind or person, who are willing to become their wives, and who bear them families; but, in general, such a union is productive of a mixed race of children, the majority of whom are little, if at all, superior to their fathers; still in no case do I find an instance of a *whole family* (when four or five exist) being imbecile: on the contrary, some of the worst cases have brothers and sisters, very little, if at all, below mediocrity of intellect; quite capable, in fact, of performing all the duties, domestic and otherwise, which fall to the lot of a labourer or a labourer's wife.

It is not my purpose at present to enter into any lengthened investigation of the cause of this malady; I may, however, before closing, make one or two short observations on the subject.

The cretins of the Swiss valleys have been supposed by some authors to be affected by the water derived from the neighbouring mountains, and which consists of melted snow. This is assuredly not the case in Chiselborough.

The constant practice of intermarriage has been assigned as a reason by some, and it certainly does exist to a greater extent in this parish than is generally the case; but not to a degree at all sufficient, *alone*, to account for the malady.

My own impression is that the disease is the effect of a combination of circumstances. *The water* is most probably of a very inferior quality, for the offspring of strangers acquire bronchocele, if they become residents in the place at an early age, although they do not appear to suffer in any other way.

Again, *the air* must be very impure, from the absence of any current through the village, in consequence of its being so closely hemmed in on three sides by hills, as well as from the great quantity of decaying vegetable matter, at certain seasons of the year, arising from the orchards, &c., in the immediate neighbourhood. Several green stagnated pools also exist in the place.

Here is, I should conceive, almost a sufficient reason to account for the prevalence of intermarriages: for, circumstances concurring thus to render the parish so uninviting to strangers, the poor inhabitants were under the necessity of "putting up" with each other, and thus, perhaps, unwittingly completing the unfortunate combination of circumstances which may have produced such miserable results.

I think the plausibility of this idea, as to the remote cause of this disease being a mixed one, is strengthened by the fact that, although it is certainly most prevalent in the lowest and poorest parts of the village, yet well-marked cases are not wanting in the highest and most airy situations—nay, are even to be found in the families of two opulent farmers in the place.

I may conclude these remarks by observing that, in one adjoining parish, I am informed that many similar cases exist; whilst in another village, almost equally near, but lying in an open situation and much higher, the inhabitants are remarkable for their healthfulness and fine stature; and this although one of the poorest parishes in the west of England.

FATAL INSTANCE OF POISONING BY SULPHURIC ACID.

Communicated by G. CORFE, Esq., Middlesex Hospital.

Henry Lemont, aged forty years, was brought to this hospital on Wednesday last, Jan. 5, at a quarter after five P.M. His countenance was of a bluish tint, not unlike a man half strangled; his extremities were cold and mottled; his pulse small and feeble; his mouth and clothes whitened by some white fluid. He spoke in a faint whisper on being interrogated, stating that at two P.M. he had gone to an oilshop and had bought half a pint of vitriol, and had swallowed it on his way home; that he instantly rejected it, and was soon afterwards in great agony. A medical gentleman had given him large draughts of magnesia and water, before sending him to the hospital. The epithelium of the lips and tongue was only partially removed, but the destruction of this cuticle was more apparent over the fauces.

He was immediately placed in a hot bath, and detained there for fifteen minutes, to induce, if possible, reaction, which was in some measure accomplished. The throat and larynx were overspread with leeches, and the bleeding orifices were afterwards covered with a large poultice, which was kept moist and warm by an external piece of oil-silk. He was supplied with lake ice, so as to allow a portion of it to be constantly in the mouth. Six ounces of the bicarbonate of magnesia and two pints of thick barley-water were given him to sip at. A large oily enema was thrown up, the feet were covered with turpentine epithems, and he was ordered to take hydr. chlor. gr. ij., ant. pot. tart. gr. ¼, pulv. tragacanth gr. iij., every four hours.

He was tranquil and sleepy at ten P.M., but he had vomited a large quantity of bloody mucus a short time previously, and his vital powers again faltered; and, after suffering intense agony, he expired at ten A.M. the following morning, seventeen hours after his admission.

The *post-mortem* examination was made on Jan. 7. The œsophagus, fauces, and alimentary canal were first laid open, when it was found that the epithelium was quite detached and corrugated, from the base of the tongue to the cardiac opening of the stomach. The mucous membrane throughout was entire, but of a scarlet redness; the interior of this tube presented the exact similitude of a snake's back. The interior of the stomach was as though a thick coating of black pitch had been laid over it with a brush; this blackened surface was not charred blood, as it did not communicate any stain to the fingers, but really a destruction of the whole tissue of this viscus. Six inches below the pyloric end of the stomach, the same condition of mucous surface was observable. Just at the middle of the duodenum the peritoneal coat, over the space of a shilling, was white, and nearly destroyed by the action of the acid from within. That spot of this bowel where the bile duct enters was perfectly untouched by the acid, so that the shining mucous surface of health exhibited a striking contrast to the frightful ravages of this corrosive poison around it. A curious appearance was also observed along the valvulæ conniventes of the duodenum and a portion of the jejunum; these surfaces were studded with numerous bulbs or bubbles of air, in size and appearance like cornelian beads. The destruction of the epithelium, and the effervescing effects of the antidote, had, during the efforts of vomiting, driven the disengaged gas under the mucous membrane, and caused this singular appearance. The effects of the corrosion were visible as low down as the ileum. None of the fluids found in the several viscera affected litmus-paper. The blood was black and clotted in the left auricle, but the ventricle was empty and rigidly contracted.

ETHER IN TETANUS.

Communicated by THOMAS HOPGOOD, Esq., M.R.C.S., Chipping-Norton.

About the middle of last November, a little boy named John Stanley, nine years of age, had an incised wound on the knuckle of the index finger of the left hand, which had slightly injured the tendon of the extensor indicis. The wound was shown to me on the 20th, and it had then a very unhealthy appearance. The joint was much swollen, and a serous fluid was oozing from the cut. The directions I gave were not attended to, and I saw no more of the boy until the 27th; on that day I found that the wound had healed, but there was a great deal of irritative inflammation in its neighbourhood. The general symptoms were most alarming. He complained of a dragging pain at the pit of the stomach, and the impossibility of keeping his hand still. There was continual catching of the left upper extremity; slight twitchings of the muscles of the face; pain in the head, and loss of vision. The tongue was clean, skin rather hot, and the pulse nervous and accelerated. Deglutition was difficult, and the respiration oppressed.

I tried various local and general remedies, but at the end of four-and-twenty hours the little fellow's symptoms had increased in intensity, although some temporary relief had been afforded by the shock of cold water dashed over him. The muscles of the jaw and neck were now in a state of rigidity, and so were those of the upper and lower extremities. He shrieked out repeatedly from intense agony.

Under these circumstances I determined to try the effect of the vapour of ether, as a last resort. Having adjusted Startin's pneumatic inhaler, and found it to act properly, I poured three drachms of ether into the receiver. A slight cough was caused by the first inhalation, but in rather less than three minutes my little patient was fairly under its influence, and remained insensible for nearly a quarter of an hour. It was

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really delightful to see the countenance of the poor boy change from that of great anguish and despair to one of tranquillity and ease. The whole of the muscles, which were before in a state of tonic spasm, were now completely relaxed. The rigid limbs yielded to every motion. From this time the symptoms gradually abated; he had occasional returns of the spasmodic twitchings, but they were invariably and readily removed by the ethereal inhalations. The wound on the finger reopened and began to suppurate. In a short time he perfectly recovered, and was able to join his playfellows.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF MEDICINE.

Meeting of Jan. 4; M. Royer Collard in the Chair.

The new president opened the meeting by a short address, in which he thanked the academy for the honour which had been conferred upon him: he would use all his efforts to show himself worthy of the trust. He invited the academy to reflect upon the probable invasion of the cholera in France, and to recommend to Government the adoption of such hygienic measures which would be deemed most proper to avert, delay, or modify the scourge. He concluded by proposing the thanks of the academy to the late president, M. Bégin, and by moving that an expression of regret be forwarded to Professor Bruill, and that circumstances had prevented him from accepting the presidency for the year 1848.

These two motions having been unanimously carried, M. Collineau reported upon a paper, by M. Joret, physician of the prison of Vannes, treating of the influence of the penitentiary system upon the production of insanity.

The prison of Vannes was very salubrious and well situated; it contained, on the average, 318 female prisoners, sleeping in nine wards, taking their meals in one refectory, and assembled in one workroom at needlework, knitting, and picking oakum. The food was wholesome and sufficiently abundant. The prisoners were strictly enjoined to preserve, day and night, absolute silence; it was the rule of Aubrun, less the solitary confinement. The punishment was the same, with the exception of corporal chastisement, which had been abandoned. Each day the prisoners had two recreations, each of half an hour, during which they were permitted to walk in silence one by one. Two things, therefore, deserved notice: first, the absolute privation of intellectual communication between the prisoners; and, secondly, insufficient bodily exercise. Since the prison had been opened, from June 20, 1842, up to June 20, 1845, 872 persons had been admitted; of whom 414 had been liberated, nineteen had been pardoned, twenty-five had become insane, eight had been placed in other houses of correction, and eighty-one had died. Thus, upwards of eighty deaths had been recorded, and every year an average of eight cases of insanity had been observed, out of a population of little more than 300 adult prisoners.

After enumerating the predisposing causes of insanity, a bad education, worse examples, a profligate life, and also "heredity," M. Joret considered as determining causes the absolute silence enjoined in the prison, the grief of the prisoners increased by this rule, and the absence of proper exercise. M. Joret forwarded thirty cases of insanity, classed according to their determining causes. The first division, comprising mental aberration attributed to the rule of absolute silence, contained six cases of mania and eight of monomania. The second division, viz., insanity produced by violent sorrow, increased by this rule, contained two cases of maniac delirium, one of mania, and seven of monomania. The last division, insanity from want of exercise, presented one case of acute mania and six of monomania. Of the entire number eight patients only had been cured. From these cases, M. Joret thought himself authorized to conclude that the penitentiary system at present adopted in the prison of Vannes causes insanity; and, from statistical researches, he arrived at the conclusion that the system of cellular imprisonment (solitary confinement) was far from giving such a large number of cases of madness.

The reporter, adopting to a certain extent the opinions of M. Joret, did not think that the time was yet arrived when any decided judgment could be formed between the two rival systems.

M. Nacquart thought these conclusions were too exclusive; what he had seen in the London penitentiaries could not permit him to adopt them.

M. Ferrus gave some explanations on the system adopted in French penitentiaries: it was the rule of Aubrun—that is, silence and labour in common during the day, and solitary confinement at night. The number of the inmates was, however, an obstacle to this second part of the rule, and they were placed in common sleeping-rooms. The beds were not sufficiently distant, and the temptation to communicate with each other became almost irresistible; hence severe punishment, solitary confinement, and privation of food; hence also disease, insanity, and death. The establishments visited by M. Nacquart were not by any means regulated by so severe a system.

M. Rochoux observed that solitary confinement led to insanity; in the United States the system has been abandoned for that cause. Solitude predisposed the mind to unwholesome excitement; in former days, hermits and ascetics became mad.

M. Londe contended that solitary confinement was an unjust and odious measure. The inspectors of prisons only defended the system because they were paid for it.

M. Nacquart answered to M. Rochoux, that hermits of old were mad before ever they retired to the desert; a measure generally useful should not be set aside on account of accidental occurrences.

M. Baillarger thought the question of solitary confinement too important a one to be thus unexpectedly discussed in the academy without preparation; he hoped that another day would be appointed for the examination of this subject. The frequency of cases of insanity in penitentiaries did not appear to him so considerable an objection as it was generally thought, to solitary confinement. Since prisoners were carefully examined at the time of their first admission into penitentiaries, it had been ascertained that a great number of those whose madness had been attributed to cellular confinement had been deranged before their entrance into prison, and sometimes even gave evident signs of insanity at the time of their admission. M. Lécut's researches had shown that insanity was far more frequent in prisons than amongst the free population: misery, reckless passions, and a vicious intellectual and moral organization, were the causes of this difference. He was, besides, with M. Nacquart, of opinion that, even if it was proved that in penitentiaries madness was a little more frequent, that would not be a sufficient reason to abandon solitary confinement, from which, in other respects, great advantages were obtained. The mortality of the central prisons and of the hulks was certainly greater than that of the free population, and still no one had presented this as an argument against these two forms of punishment.

The conclusions of the report were then adopted.

Treatment of Burns.—The method employed by Dr. Jobert, of Hôpital Saint Louis, in the treatment of burns, consists in the application of bladders filled with ice upon the injured part. The results have generally proved satisfactory, the gangrenous reaction being speedily limited, and the suppuration very much diminished. The patients are much relieved by the application; and, when the burns are very extensive, cold baths are also used By these means the visceral inflammations which so frequently endanger the life of persons burned on an extensive surface are also prevented.

New Method of Treatment in Thoracic Disease.—Dr. Gastaldi recommends, for the treatment of chronic affections of the chest, a new medication, which has been tried with advantage in several cases. This method consists in the inhalation of air loaded with minute particles of nitrate of silver. A powder, consisting of two parts of charcoal and one of nitrate of silver, being agitated under a glass bell, Dr. Gastaldi introduced birds into its cavity, and, after having permitted them to remain a certain time, opened the bodies, and found in the lungs undoubted proof of the contact of the medicine with their mucous surface. From experiments performed upon himself, he concludes that the lungs tolerate very easily the introduction of the nitrate of silver. The dynamic action of this hyposthenisating agent in various external inflammations was the circumstance which induced Dr. Gastaldi to test its effects in internal disease. No cases, however, are published in support of this new method.

Hysteria.—The most constant phenomenon of this protean malady (says Dr. Briquet) is the presence of a very painful and circumscribed spot in some part of the course of the spinal processes of the vertebræ, and a state of anæsthesia in the skin, generally extending from the painful part of the spine to the umbilicus. Sometimes, instead of being insensible, the skin is, on the contrary, more sensitive than usual. Dr. Briquet considers the disease as a sub-inflammatory condition of the spinal chord, and exhibits for its treatment ferruginous preparations internally, while repeated blisters were applied to the painful region of the spine.

D. M'Carthy, D.M.P.

Morphia in Mental Derangement.—"The preparation," says Dr. Seymour, "which I have preferred, and, with two or three exceptions, I have always used, is the acetate of morphia; the mode of preparation the solution; forty drops of the solution which I have employed generally contain one grain of the alkaloid salt. It has generally been, in mild cases, my practice to begin by a quarter of a grain every night in solution; then, after a week, to increase this to half a grain: it has been rarely, in such cases, necessary to increase the dose beyond half a grain. In severe cases I begin with half a grain (twenty drops), and increase it speedily to a grain (forty drops); rarely beyond this dose. The medicine is given at bedtime only, the period which is intended for sleep; but it must be repeated without the *intermission* of a single night—for several weeks in mild cases, for at least three months in the most severe ones. In some of these cases, at first, sleep is not produced; in very few *rest* is not produced. Slight nausea and disturbance of the head are felt the first few mornings, but in these cases almost always at first, and *always after* a short time, both sleep is produced and the waking hours are free from pain."

Mercury in Pericarditis.—In the last number of "The British and Foreign Medical Review," the following inferences are deduced from Dr. Taylor's cases, illustrating the utility or non-utility of mercury in pericarditis and some other inflammations. Ptyalism was not followed by any abatement of the pericarditis in *twelve* cases. In one case ptyalism was followed by speedy relief. In two cases by a diminution, and then gradual cessation, of the pericardial murmur. In one case this murmur had been diminishing some days before, and it ceased soon after ptyalism was produced. In one case pericarditis and pneumonia both increased in extent and intensity after ptyalism. In four cases pneumonia supervened after the establishment of, and therefore was not prevented by, ptyalism. In three cases endo-carditis came on afterwards. In six cases it was followed by pericarditis. In one case, in which mercury was given for nineteen days, ptyalism could not be produced, and yet the pericarditis went on favourably. In two cases ptyalism was followed by extensive pleuritis. In

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one case by erysipelas and inflammation of the larynx. In two cases rheumatism continued long after ptyalism was produced. These propositions show very clearly that current opinions on the powers of mercury require revision.

Enlargement of the Ovary from Inflammatory Action.—In the early stages (Dr. Lee observes) the enlarged ovary can be distinctly felt between the vagina and rectum, as a tumour very painful on pressure. Under these circumstances local bloodletting is very important; this is to be effected, not as is usually prescribed—viz., by cupping the loins, or by application of leeches to the vulva—but by the actual application of leeches to the tumour itself through the rectum. The bowel is to be washed out by a copious enema; then, by placing the leeches in a long tube, the upper end of which is perforated by a number of holes, the mucous membrane bulges through these perforations on introducing it into the bowel, and the leeches usually fix themselves to it; and, when it arrives at the diseased ovary, it produces pain, and ought not to be pushed further. Large quantities of blood may be taken in this way, and the application ought to be repeated every fourth day. This local depletion is to be further assisted by calomel, and opium, and salines. Blisters and leeches ought to be applied to the tumour when above the pubis, when pain pain and uneasiness are felt.

Follicular Disease of the Tonsils, and Phthisis Pulmonalis.—Dr. Horace Green, of New York, in his work on the diseases of the air-passages, &c., says that phthisis is often complicated with follicular disease; when coexisting, the cough, dyspnœa, and all the characteristic symptoms of the former disease are greatly aggravated, and the affection passes through its stages and reaches its fatal termination much sooner ordinarily than when its progress is unattended with follicular disease of the pharyngo-laryngeal membrane. Although little can be expected from any attempt made to prevent the final *dénouement* in those cases where disorganization of the lungs has occurred, yet in many instances the harassing cough, the difficulty of deglutition, and the dyspnœa, which are often present in this combination of disease, are signally relieved, and the sufferings of the patient greatly mitigated, by the employment of topical medication upon the diseased laryngeal surface. So marked, indeed, has this relief been in some cases which have fallen under my observation, even when tubercular cavities have been present, as to awaken in the minds of the patients and their friends strong hopes of their final recovery. In other instances—not a few—when follicular laryngitis has preceded thoracic disease, the symptoms of incipient pulmonary affection have rapidly disappeared after the removal by topical medication of the primary follicular disease. The treatment recommended is cauterization of the fauces, glottis, and cavity of the larynx, every day, or every alternate day, for some time.

A New Deodoriser.—This deodoriser, discovered by Mr. Young, of Manchester, who has not patented it, is a waste product from the manufacture of chlorine. It consists principally of a solution of chloride of manganese with a variable quantity of chloride of iron, and generally a little hydrochloric acid and free chlorine. It is produced in large quantities; one house throws away thirty-six tons of the solution daily, and the total quantity is believed to exceed one hundred and fifty tons a day, not any of which is at present usefully employed. Experiments have been made, which have satisfied Mr. Young that this solution has in a high degree the property of preventing decomposition in organic matter; cesspools, and other places giving out the most offensive odour, have been immediately sweetened by it. The immediate effect of adding this substance to offensive matter is, the conversion of the hydrosulphuret of ammonia, which is the most offensive of the gases of decomposition, into the sulphurate of manganese and muriate of ammonia, or, as it is often called, chloride of ammonia. The latter is a valuable manure, and the former, though of less value, is not injurious to vegetation. Manganese, like iron, possesses no acid metallic qualities, and is, like it, used by nature as a food for plants.

Preternatural Elongation of the Cervix Uteri.—Dr. J. M. Coley, in "The Obstetric Record," says, that this disease is occasionally experienced in conjunction with the fibrous tumour of the uterus. It appears to be the same in both instances, viz., a permanent hypertrophy of the cervix, occasioned by interruption of the circulation in the walls of the uterus. The cervix is not only extended in this disease, but is also much increased in diameter, being occasionally much longer and thicker than the largest teat of a cow; which it also much resembles in shape and structure. The situation of this elongation will be found immediately beneath the urethra. It is perfectly free from all tenderness, and the only symptoms indicatory of the disease are, distressing sensation of dragging, or prolapsus, accompanied with pains in the back, which continue whilst the patient preserves the erect position. Pregnancy never occurs during the continuance of this preternatural condition of the cervix. The cause of this will at once resolve itself to those who are conversant with the natural structure, the position, and the physiology of the os and cervix uteri, in connection with the process of conception. When this infirmity is connected with passive congestion of the uterus, it may be greatly relieved by the internal use of iodide of iron, or ioduret of mercury, in conjunction with rest in the horizontal position. It is to be observed, however, that in established cases this treatment only affords relief, a permanent hypertrophy remaining to a considerable and inconvenient extent. Much benefit is also derived from the introduction of a soft sponge, which must be removed at bedtime. The dragging sensation is in some cases so severe as to require the excision of the superfluous elongation; an operation perfectly safe in the absence of specific disease.

Voluminous Enterocele through the Fundus of the Uterus.—A woman, sixty years of age, had been affected with what M. Chaptois calls a vaginal hernia for a long time, for which she had never sought relief. The disease progressed, and she experienced a sensation of weight and dragging in the hypogastrium. Tenesmus and dysuria appeared, and gradually became so considerable that her body was bent forward, the head approaching the knees. M. Chaptois found, on examination, that an enormous mass of the small intestines and the colon had passed out through the uterus, which was dragged with it and torn. This organ was completely retroverted, turned inside out, and hung between the thighs. The tumour was pyriform, of a reddish-brown colour, somewhat larger than the fist. The walls of the fundus were thin, and were apparently destitute of all circulation. Towards the right Fallopian angle there existed a slit, or tear, six centimtres in length, which had given passage to the mass of intestines, the last coil of which that had been forced out was of a rose colour. The vitality, almost extinguished in the older part of the hernia, was manifested, in that most recently displaced, by distinct pulsations. The pulse was small and contracted; there were hiccough, cold sweats, and frequent syncope. The hernial mass having been washed, they were reintroduced into the pelvic cavity, where they were retained by introducing into the vagina a fine sponge, sustained by a convenient apparatus. Frequent vomitings, and horrible convulsions, became developed; but, after some abundant stools, she became tranquil. The appetite soon returned, and the convalescence proceeded regularly until the third month, when a peripneumonia caused death in fifteen days. There was no examination of the body.

Subclavian Aneurism Cured by Galvano-puncture.—The patient, a female of sixty-five years of age, had been affected with aneurism of the left subclavian artery during eighteen months previously to her being attended by Dr. Abeille, principal medical officer in the Military Hospital of Givet (Ardennes). The tumour was situated between the scaleni muscles, and was of the size of a hen's egg. It was the source of much suffering, sleeplessness, and ringing in the ears of the patient. The difficulty and doubtful practicability of applying a ligature on the vessel between the aneurismal dilatation and the heart being evident, it was determined to try the effect of a galvanic current through the contents of the sac. As soon as the patient was rendered insensible to pain by the inhalation of ether, two pair of needles were inserted into the tumour to the depth of an inch, and a strong galvanic current was established in connection with them. At first the effect on the patient was slight, but at the end of five minutes it required four assistants to hold her. The operation was continued for twenty-eight minutes. During this time the tumour was felt becoming gradually solidified, and before the withdrawal of the needles it had become perfectly solid; and pulsation was no longer felt in it or in the brachial or radial artery below. The limb became engorged, and the patient complained of its being benumbed and prickling. During the operation, the artery above the tumour was partially compressed by an assistant. Afterwards this compression was continued by means of an apparatus for five or six hours. In withdrawing the needles, two of them were removed with ease, but the others required a good deal of rotary motion, and some drops of blood escaped from their punctures. The patient maintained the same position in which she had been placed during the operation for eight or ten hours afterwards. For forty-eight hours after the operation no pulsation could be detected in the arteries of the limb. No œdema, however, ensued, and sensibility remained unimpaired. At the end of this time the radial artery commenced to pulsate, and the limb gradually recovered its mental temperature. About the eighth day the tumour appeared to be diminished in size, and this diminution progressed gradually; so that, at the end of thirty-eight days, nothing but a small, oval, firm tumour could be felt on pressing strongly with the fingers in the situation of the swelling. During the first few days which followed the operation, there was some threatening of cerebral congestion, which was relieved by bloodletting. No symptom of inflammatory action manifested itself either on the surface or in the tumour. From the punctures of the two needles which were withdrawn with difficulty there was slight discharge of blood and matter for three days; but they were cicatrized a few days subsequently. Seven months after the operation there existed no trace of the aneurism; and in its place there was a hard flattened cord, to which the skin adhered. Immediately above the situation of the aneurism, two enlarged collateral branches were felt pulsating strongly. The patient was in the enjoyment of perfect health.

Utility of Microscopic Observations in the Diagnosis of Cancerous Tumours.—An officer of artillery, aged thirty-eight years, of a robust constitution, consulted M. Marmy, in January, 1846, for an orchitis, caused, as he believed, by friction against the pummel of the saddle. The left testicle was of regular form, but a third larger than the other; the cord healthy; no syphilitic affection for a long time. An antiphlogistic treatment soon restored the organ to its normal size; but, towards the end of February, the patient having again entered the service, the disease reappeared, and, although it gave way a second time to the same treatment, it again returned. This time, the treatment, assisted by the administration of the ioduret of mercury internally and externally, then the ioduret of potassium, of the oxide of gold, continued a long time, and lastly, of purgatives and diuretics, supported by a rigid diet, were all ineffectual. On the 1st of December, the tumour, which was now larger than the two fists united, presented a slight fluctuation at its inferior part. He experienced temporary pains, sometimes in the scrotum, at others in the cord, which was healthy. His general health was good. Nothing

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indicated then the existence of a malignant degeneration. M. Sedillot having made an exploratory puncture, which gave issue only to a drop of blood, removed with the canula some portions of the matter; which, under the microscope, presented cancer cells, with all their characters well marked, swimming in a granular blastema, mingled with numerous drops of oil. In consequence of this examination, the operation of castration was proposed and practised. Three days after the operation, the base of the wound exhibited a tolerably large clot of blood, which in three days more appeared to be organized, and white lines circumscribing areolar spaces were seen on its surface. Whilst preparing to destroy the clot with the actual cautery the moment a cancerous reproduction should appear, M. Sedillot determined, in the first place, to assure himself of its nature. He removed a small portion of it, which he examined with the microscope, and determined that the appearance was caused by the presence of altered globules of blood, and pus corpuscles. In fifty days the patient was perfectly cured. The form of the removed sarcocele resembled that of an hypertrophied kidney. On section, its tissue presented all the characters of encephaloma, consisting of yellowish-white masses, soft, pulpy, and sprinkled over with small bloody extravasations. On a microscopic examination, there were recognised the same elements as were observed after the exploratory puncture. A microscopic examination here determined the disease. But its utility was not limited to this point. A bloody clot, appearing under the form of a fungus, caused fears that the cancer was about to be reproduced; instruments were already prepared to destroy it, when the microscope saved the patient from this painful and useless operation. The mother of the patient died a short time after of a cancerous ulcer of the breast.

Intermittent Strabismus.—Dr. Andrew Anderson relates, in "The Monthly Journal," the case of a delicate-looking child, five years old, which was placed under his care in consequence of squinting inwardly most decidedly with both eyes. Her mother stated that she had done so for about two years, during which she had once or twice had symptoms supposed to indicate irritation within the head; but that the most curious part of the malady was its being regularly intermittent, for she squinted only on alternate days; or if by chance the convergence should last, as it sometimes did, for two days, there followed other two during which the squint was absent. The story was scarcely credited at first; but soon there was ample proof of the correctness of the mother's statement. Next day the strabismus was gone, and on the following day it had returned; and the affection seemed to undergo no change for the space of two years, during which the child continued to present herself at intervals. Various treatment was had recourse to, but in vain; quinine, iodine, and other remedies, had no effect; and two years afterwards she was reported as still squinting on alternate days.

Operation for Entropium.—Instead of cutting through the entire eyelid, as in Crampton's operation, Dr. Wallace has for some years past made an incision through the entire length of the tarsus, about the eighth of an inch from, and parallel to, its margin. From this incision to the margin he cuts through the tarsus again, at each canthus, and at the middle, making the letter m; or, if the curvature is very great, he makes more perpendicular incisions. Threads are then drawn through the integuments, and fastened to the forehead, as in Crampton's operation. As the curved tarsus only is divided, the deformity occasioned by cutting through the integuments in Ware's and Crampton's operations is avoided. From the lifeless relaxed state of the eyelids, after the application of the vapour of prussic acid for opacities of the cornea, he would be inclined to try its effects in diminishing the irritability of the eyelids previous to an operation.

THE MEDICAL TIMES.

SATURDAY, JANUARY 15, 1848.

THE ROYAL SOCIETY AND DR. ROBERT LEE.

The Council of the Royal Society having been grossly assailed in the leading article of one of our contemporaries, on the unfounded allegation that they had "blackballed" a recent paper presented to them by Dr. Robert Lee, we think it our duty to publish the following document in vindication both of the Council and of the Committee of Physiology. The assertion that the paper in question was rejected has been industriously circulated, and it has been suffered to remain uncontradicted by Dr. Lee himself; although he must have been aware of its being untrue, because it was at his own solicitation that the council permitted him to withdraw it, before they had discussed the question as to the propriety of publishing it. The Committee of Physiology have been represented in the same journal as being actuated by "spite—mean, bitter, and withal pitiful spite, which," it is said, "has been the chief element in their decisions;" and they are held up to reprobation for keeping "their proceedings and the ground of their decisions profoundly secret."

The production of the following report, which was drawn up by the eminent anatomists to whom the committee had referred the paper, will now afford our readers the means of forming their opinion of the real grounds on which the committee came to the decision of not recommending it for publication:—

"REPORT ON DR. ROBERT LEE'S PAPER, ENTITLED, 'ON THE GANGLIA AND NERVES OF THE HEART.'

"Nine pages of this paper are occupied by historical references; the remaining seven by the author's account of the nerves and ganglia of the heart, derived from dissections of a fœtal heart at four months and a half, the heart of a child of six years old, that of an adult, the enlarged heart of an adult, and the heart of an ox.

"The author states that these dissections warrant the conclusions—1. That numerous ganglia and plexuses exist in the heart which have not been described or represented by preceding anatomists. 2. That these nervous structures enlarge, as the heart enlarges, up to the adult state. 3. That the ganglia and nerves of the heart enlarge in hypertrophy of the organ. 4. That the ganglia and nerves of the left ventricle are more than double the size of those of the right.

"We shall speak of these conclusions in detail:—

"1. The author says (p. 14), 'Many great branches of nerves, with ganglia formed upon them, accompany not only all the branches which pass into the muscular substance of the ventricle.' Again (p. 15), 'There are numerous branches of nerves, with ganglia distributed over both surfaces of the ventricles of the human heart, which do not accompanny the blood-vessels.' 'On the portions of the ventricles which are destitute of fat these ganglia and nerves are distinctly visible to the naked eye through the cardiac fascia, and present a very remarkable appearance.' Towards the left side and apex of the left ventricle they spread out into ganglionic enlargements.' Again (p. 16), 'Ganglia are formed of considerable size in these superficial nerves, where they are crossing the bloodvessels, and from these chains of ganglia over the arteries branches are sent off, &c.' 'On these superficial cardiac nerves there are numerous ganglionic enlargements observed as they proceed from the base to the apex of the ventricles, and from these ganglia the muscular substance of the heart is supplied with innumerable branches, which pass between the fasciculi. The appearances now described,' he adds, 'have been represented in the accompanying drawings from recent dissections.'

"Only one drawing seems to have been sent in with the paper on the 15th April, 1847—viz., No. 1. No. 2 was sent in on the 20th May. This drawing, when the paper was referred to us on the 7th July, bore the following pencil note:—'The drawing is not finished in the part representing the septum of the ventricles. The other parts are completely finished. Natural size. R. L., 2nd June, 1847.' No. 3, representing the ganglia and nerves on the surface of the left ventricle of the ox, the author states, was sent in with the paper 'On the Ganglia and Nerves of the Virgin Uterus.' This, consequently, we have not seen.

"Drawing No. 1 represents about twenty-five ganglia in the course of the nerves ramifying over one surface of the heart of a child of six years old. Drawing No. 2 (the hypertrophied human heart), in that part of it which the author states to be 'completely finished,' represents nearly as many ganglia, many of which are slight fusiform swellings of the nerves; and, besides these, the delicate nervous filaments are shown as enlarging in many situations to three or four times their previous diameter, and sometimes forming a loop in this enlarged state, ere they penetrate the substance of the heart.

"Understanding it to be the author's wish that we should inspect his dissections, we devoted part of a morning to that purpose, and carefully and minutely examined all he placed before us, and particularly the specimens from which drawings Nos. 1 and 2 have been taken.

"We found these preparations to have been made with considerable devotion of time and manual skill, but in many parts the nerves were incompletely divested of the fibrous and cellular tissues. Still, on the whole, the nerves represented in the drawings could be recognised in the preparations; but we could discover none of the fifty ganglia depicted. On the contrary, the preparations left no doubts in our minds, that no such ganglia exist in the course of the cardiac nerves over the surface of the ventricles. In one part of the drawing No. 1 are represented fifteen or twenty nervous filaments, and two plump and well-marked ganglia, while in the corresponding part of the preparation, from which the drawing was made, neither nerve nor ganglion was discernible.

"With regard to the enlargements of the nervous filaments towards their terminations, we found, in like manner, that the descriptions of the author and the pencil of the artist were alike incorrect. According to drawing No. 2, one of these enlargements near the apex of the ventricle is as large as the cardiac nerves in the aortic and cardiac plexus. This, compared with the same parts in the preparation, can only be styled an extravagant misrepresentation.

"In what we have now said, we do not allude to one or two small ganglia at the base of the heart, which are well known to be occasionally present in the course of the cardiac plexuses.

"2. We inspected the heart of the fœtus and of the child, with reference to the question of the enlargement of the nerves with growth. It appeared, as might have been expected, that those of the child were considerably larger than those of the fœtus, though no accurate estimate of their size, relative to the whole organ, could be formed. The heart of the adult in the healthy state, the author informed us was not in a sufficiently advanced state for our inspection.

"3. For the last-mentioned reason, we could form no conclusion as to the grounds of the author's statement, that the ganglia and nerves enlarge in hypertrophy of the organ.

"4. It appeared that the nervous supply of the left ventricle was greater than that of the right.

"In reviewing this paper, it is evident that

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the statement of greatest importance, if correct, is that which describes numerous ganglia and gangliform enlargements to exist on the cardiac nerves, in their course over the surface of the heart. The descriptions are very explicit as to their existence, and the illustrations sent in by the author depict these ganglia in what we might almost call a luxuriance of number and size. We were, therefore, hardly prepared to find that the preparations from which the descriptions and drawings have been taken, and to which the author refers as the basis of his communication, contain no warrant, as far as we could discover, for the statement that such structures exist in the situations ascribed to them.

"In saying this, we do not intend to throw doubt on the description of remark of microscopical ganglia with grey corpuscles on the cardiac nerves.

"We do not recommend this paper for publication in the 'Transactions.'

"Aug. 8, 1847.

MEDICAL MEN AND CORONERS' JURIES.

In considering the Croydon inquest—elsewhere reported—the preliminary inquiry offers itself, what are the duties of a medical man under sick calls? Is he everlastingly to consider himself under marching orders to every man in sickness?—to the stranger as to the customary patient?—to him that will not pay?—to him that cannot pay? This would appear to be the opinion of society in the gross. John Nokes, a journeyman shoemaker, one of fifty husbands advertised by a London parish as deserting their wives and families, after spending his week's wages on drink, finds himself struck by apoplexy at two o'clock of a winter's morning. The nearest doctor is engaged in some other case; and Mr. Sydenham the next, but situate about two miles off, is unceremoniously roused from his sleep. Before perilling what may haply be an unnecessary descent, he prudently reconnoitres his unwelcome visitors from the bedroom window, and ascertaining, by a few very natural questions, that he is asked to give his night's attendance gratis to no very worthy member of society, he declines to move. "The parish doctor should visit the case: if he do not, or cannot, the parish should provide a substitute: I live with difficulty under paid visits, and I cannot afford, in time, purse, or health, to perform gratis the heavy duties you ask from me. However useful to the parish such charities, they would be ruinous to me." The poor man dies, and an inquest is held: the visit to Mr. Sydenham and his reply are very circumstantially detailed in evidence; and the jury, horror-stricken at his barbarity, give, to the manifest exultation of the "*very humane*" coroner, what they call a "slashing verdict."

These sort of incidents are not *very* common, only because medical men do not often have the sternness to act like the one we have sketched: still they do occur at intervals, and the verdicts that accompany them generally carry with them the stamp of public approbation.

Yet, have we not grounds for saying that Mr. Sydenham's conduct is not only justifiable in ethics, but that it is civilly justified by its analogy with the whole of our social rules and habits?

If sundry expensive drugs are declared to be necessary to save the life of a certain person too poor to pay for them, will the chemist, who was one of the jury condemning Mr. Sydenham, *give* them? Will he not say, "If the drugs are considered so necessary, why will those about the man not pay for them? Why insist on having them at my charge? My duty and my business is to sell, not give away wares, and I shall please myself, not take your wishes, as to the channel of any charities I may wish to circulate."

Again, how is it with the second indignant juryman, the baker? Tell him of a starving mendicant, and what is his reply? "There is the parish, or, if he wants my loaf, who so proper to pay for it as you who recommend him?" The butcher—the shoemaker—the tailor—down to the twelfth member of the jury, would respond in similar terms to every similar application. On what grounds, then, shall an exception be made against the medical man? Is his skill more to the dying man than drugs, or than food for the starving? Is he richer? better remunerated? less tasked? less rated? less taxed? If we are to have verdicts against medical men for not giving their stock in trade gratis, why in destitution cases are we to have no "expression of marked censure of Mr. Rolls, the baker, who, on being apprised of the destitution of the deceased, inhumanly declined to furnish him with a quartern loaf daily"? or of verdicts against Mr. Grease, the butcher, who, in answer to the deceased's application for beef, "inhumanly declared that he was obliged, in the interest of his large family, to turn his sirloins to more profitable account?" It may be true that medical men are excluded from coroners' juries by the same law which composes them of worthy butchers and bakers, and that the public justice of any country is always that justice which, costing nothing in purse or feelings to its respected administrators, can be fully carried out at the expense of other people; but still the principle on which alone medical men can be immolated to public right, so necessarily carries an equal condemnation to their judges, that out of regard to a little decency, and some foreseeing power of reasoning, we would suggest to "respectable jurymen" for the future, the novelty of a little attention to what they are about when enunciating their "slashing verdicts."

We hold, then, that the gratuitous services of a medical man are as entirely a matter of private charity as the pecuniary or commodity donations of the gentleman or the tradesman, and offer no fitter subject for the public jurisprudence of the country. To *give*, in an eleemosynary sense, is a duty of conscience, not of law; and no one but the agent himself is a competent judge of its proper or improper exercise. It is beyond the arena of public discussion, and far, very far, beyond the functions of a coroner's jury.

With a medical man there are many considerations beyond private ones, which may not unfrequently well check the promptings of interior benevolence. The sick poor are and ought to be a national charge, the burden of which he fairly shares with every other ratepayer. But there has been for many years a growing tendency to make special the general charge, and throw by one means or another on the shoulders of medical men those responsibilities which belong to the whole public; and if doctors and the public should concur with ratepaying juries, that medical men are guilty of a social crime perilous to their repute when they decline pauper cases without remuneration, a practice of gratuitous attending must be forced on them, which will lessen the rates in the precise proportion in which it will augment at once the dangers of the poor, and the profitless labour of the profession. As it is, one half the medical poor-law relief is withdrawn from the ratepayers of England, to be saddled on the shoulders of medical men; and, if the plan of forcing on us gratuitous attendances through coroners' juries be persisted in, relieving-officers will soon forget to issue medical orders, that the other half may undergo a migration in the same unfortunate direction.

In the Croydon Inquest we have a capital instance of this interesting habit of saddling on the medical man alone the burdens of Society.

If there be any place where medical poor-law officers should not administer midwifery attendance gratis, it is undoubtedly Croydon. When, in consequence of the notorious inadequacy of poor-law medical remuneration, the Somerset-house authorities, with the sanction of Sir James Graham, introduced the system of extra payments for special cases, the poor-law guardians of Croydon were among the first to calculate the probable increase of payment that might thus arise, and forthwith deducted the estimated amount (about sixty pounds) from the yearly salary.

As before the extra payments were introduced no care was taken by the Board to guard off extra and unnecessary midwifery cases from the medical officer, so, after the period when the extra payments were to be made, no care was spared to contract and preclude that portion of medical relief. It is no unimportant indication of the conscientious manner in which the pauper sick are looked to, that in Croydon the midwifery aid of the parish has diminished more than twenty-five per cent. since the arrangement requiring medical men not to attend to it for nothing! The coincidence between the diminished fecundity of Croydon women and the increased liberality of the poor-law commissioners is curious.

In the special case—the subject of the inquest—the board appears to have acted with its wonted parsimony. Because the husband earned one guinea a week, the wretched wife, obliged in the last stage of pregnancy to make her petition, was rudely refused her prayer; and Mr. Berncastle—compelled to pay her three visits without the authority of an order from the proper authorities — was obliged to abandon the woman to the casual skill of the midwife attending her on the distinct and peremptory request of the relieving-officer—the mouthpiece of the board, of whom both were officers. We had, of course, the commonplace result. The parsimony of the board denied the woman those consecutive attentions, and that enlightened superintendence, the case required; and amid the mischances thus evoked—between the withdrawal of the proper attendant on one side, and the employment of a "dispensing assistant" on the other—the poor patient perished. Good men and true were of course summoned (a dozen of those bakers, and butchers, and tailors, who *so often* supersede the use of parochial charity by the bountiful way in which they are ever feeding the hungry and clothing the naked), and, the whole circumstances of the case being submitted to them, they are not long, under coroner-guidance, in deciding that Mr. Berncastle had committed something akin to manslaughter, because he had not disobeyed the injunctions of the relieving-officer, upset the decision of the board of guardians, and given, against their behests, and gratuitously, his time and services to a protracted labour.

WALKING THE HOSPITALS, AND MEDICAL APPRENTICESHIP.

The gentlemen who have been examined before

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the select committee of the House of Commons on the Registration Bill have unanimously condemned the system of domestic medical apprenticeship, which time has rendered venerable, and an act of Parliament imperative. Of the utility of five years' drudgery behind a counter, in order that a youth may become an adept at making pills, compounding draughts, and dusting bottles, there can be but one opinion, that it is, as Mr. Green expresses it, "a waste of five precious years of human life." During this time hardly one advance is made in the domain of thought by the majority of young men; and they too frequently rush into the world with few symptoms of mental cultivation, and ill prepared to receive the facts which ought to be presented to their notice by their teachers, whose office it is to prepare them for the future exercise of their profession.

But, while the aforesaid witnesses have been earnest in denouncing the ancient system of apprenticeship, they have been silent upon the defects which mark the next stage of medical pupilage, familiarly denominated "walking the hospitals." And this is no marvel, inasmuch as the witnessing parties have an interest, either directly or indirectly, in annihilating the one, and in maintaining the other. By the abolition of the five years' articling to a private practitioner, all medical pupils hereafter will be forced to begin, continue, and end their studies in hospitals, especially those of London; and, as a natural consequence, the incomes of physicians and surgeons attached to those institutions will be proportionably increased. The education and examination of general practitioners thus brought entirely within their grasp, "the inferior order" will become more subservient to the wants and wishes of the illustrious personages attached to the Pall-mall and Lincoln's Inn-fields establishments.

While, however, the witnessing physicians and surgeons were silent at St. Stephen's on the defects of hospital instruction, which is more particularly carried on under their superintendence, we will expose to the view of the profession a few of its defects. Mr. Green admitted in his evidence that there should be no very striking distinctions in the mode of educating medical practitioners, yet, during the lengthened period that he occupied a prominent and honourable position in the Royal Hospital of St. Thomas's, there existed, as well as in other metropolitan hospitals, three distinct orders of students, separated from each other, as regards educational privileges, by a great gulf, which could only be passed by a golden bridge. The pinions of young intellect had no power to cross this abyss, or to overtop the barriers which seemed, like Pelion upon Ossa, to reach even to the skies. A medical student, with a noble mind and a plebeian pocket, had no more chance of rising to distinction in the London hospitals than he had of obtaining possession of the throne of the Great Mogul. Our profession, confessed by all a benevolent one, is in this respect sternly uncharitable to her children, and we know of no material alterations for the better, even up to the present time.

In the first class of students we have the hospital apprentices, who are permitted to hope for professional appointments, at some future day, in the various institutions to which they belong. From three to five hundred guineas is the sum at which these privileges have been purchased, and upon the youths the greatest care is bestowed as regards their surgical education. These have constant access to the patients of the hospital, attend on all occasions their masters, and occasionally perform some of the minor operations of surgery, such as lopping off a finger or toe of some unfortunate human being. The dressers come next in order, and these also have pretty fair opportunities of acquiring a practical knowledge of surgery; but it is purchased at the expense of fifty guineas for one year, in such institutions as St. Bartholomew's and St. Thomas's. But the pupils who pay only twenty-six guineas for the year have neither care nor attention bestowed on their education. They are mere lookers-on as the surgeon goes his rounds, trotting after him as he enters the different wards, and frequently elbowing each other most unmercifully, in order to catch a glimpse of the different patients who are examined. In the operating-theatre they occupy the back stands, where it is impossible for more than a few to obtain anything like a correct knowledge of the various proceedings of the operator while the patient is on the table. If under these circumstances a student obtains anything like sound knowledge in his profession, it is by unwearied efforts and indomitable resolution. It is utterly impossible that all medical students can receive the information which they require, with the system of instruction at present in vogue, in order to pass a respectable examination without having recourse to grinders. Walking the hospitals is a mere form of education without power; and in some metropolitan institutions a young man can as easily obtain his certificate of attendance without scarcely having entered a single ward, as if he had diligently followed the footsteps of the surgeon from the accident-ward on the ground floor to the venereal apartments under the skylights.

Now, we ask, can it be expected that the majority of students will acquire, under such a system, such an amount of practical surgical knowledge as will enable them to commence the practice of their profession with comfort to themselves? Certainly not: and the fault lies, not with the Apothecaries' Company—for requiring the pupil to devote his attention to too many scientific subjects in a brief space of time—but with hospital surgeons in authority at the College, for establishing and patronizing a mode of surgical education for *pupils* as defective as the apprenticeship from which they have just escaped. Nay, in many respects, the latter has its advantages, for the youth under private tuition are now and then permitted to use their hands in some professional employment; but in walking the hospital they are only suffered to exercise their eyes.

Such a system is, above all others, eminently calculated to send forth practitioners "with as small an amount of knowledge as is compatible with the safety of the public;" and no other end can those persons have in view who enforce it; and thus they think to perpetuate caste in a liberal profession. The late Mr. Dermott, whose experience of men and things in the medical profession was most extensive, says, "We have the golden bar of exclusiveness put up between the mass of pupils at large, and the favoured few. There is, in our present system, encouragement to vice and discouragement to morality; there is preferment without talent, not preferment as the result of it. Our universities and hospitals are so many rotten boroughs, where a system of favouritism and private interest is fostered. And thus are science and human life in this country made the victims of private interest and party cabal."

In no other civilized country throughout the world is such an injurious system of education adopted as in England; and if the general practitioners prove themselves in after life skilful in the treatment of disease, and in the performance of surgical operations, as vast numbers of them do, they owe no debt of gratitude to the system of education which, when pupils, they were compelled to adopt. In France there is no distinction amongst students but such as talent confers. In Germany the same principle is adopted, while all means are employed to send forth into the world a race of men well qualified in every branch of the healing art. In the Italian, as also in many of the German, hospitals, every patient is placed under the care of a student, whose attendance must be punctual twice a day. His duty is to ascertain and record the history of the case, and to note all the symptoms which present themselves, as well as the plan of treatment adopted by the hospital medical officer. If the patient should recover, before he leaves the hospital the student reads the particulars of the case to the professor, and it is then entered in the records of the clinical ward. If, however, the patient should die, then, before the autopsy takes place, the student narrates the case, with the diagnosis; afterwards other pupils examine the body, when he takes down the various appearances presented by the organs, and makes observations on the medical opinions formed during the time the patient was in the hospital. Should any pupil not attend a patient committed to him, or in any way neglect his duty, he is subjected to a severe reprimand, and is not permitted to be present at certain examinations; while diligence is noticed and rewarded.

Let something similar be adopted in England, and we should then hear no more of the prevalence of "cramming," because medical instruction would become more sound and efficient. At present walking the hospitals has very little superiority over domestic apprenticeship: they both need renovation, and the sooner the work is commenced the better.

DISINFECTING AGENTS AND THEIR VIRTUES.

The public has for some time past been amused, if not edified, by accounts of certain disinfecting agents, said to possess the remarkable property of not only taking away the effluvia which escapes from decomposing animal matter, but also of destroying the power of miasmatic vapours. Many individuals were in consequence led to believe that henceforth their olfactory organs would no longer be offended by the disagreeable smell which naturally arises from cesspools and sewers; but that their very bodies would be shielded from the attacks of the monster typhus. The bubble has at length burst, and all the fine promises of the patentees have proved to be empty and vain.

The *cloacal* department appeared to be at one time so promising a field of enterprise that no small number of geniuses, with a heroism becoming the votaries of science, were found in daily and nightly contact with matter of the most offensive description, studying its chemical composition, and the changes resulting from its exposure to that all-powerful principle, oxygen. One after another of these illustrious students announced a discovery, and the Office of Patents was absolutely in danger of being taken by storm by the crowd of applicants who sought to obtain patents for infallible de-odorising compounds.

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Scarcely was there a large city within the boundaries of the three kingdoms which was not visited by some one of these apostles of health and science. The mania for disinfectants even reached as far as Canada, and the men of science there resolved to test most severely the claims of two distinguished patentees, and to award the palm to the more worthy.

Accordingly, a day was appointed for the investigation to take place, and ten wise men chosen, with noses as sharp-scented as any of those illustrious quadrupeds immortalized in Latin verse by the elegant Ovid. The candidates for fame were Sir William Burnett and M. Ledoyen; and the following articles were unanimously agreed upon:—

"1. That each operator should take a basin one-third filled with fæces taken from the same pail.

"2. The names of the operators to be marked, one on the bottom of each basin.

"3. An equal quantity of disinfecting fluid, and also of the same strength, to be put into each basin.

"4. Both basins to be stirred for the same length of time.

"5. The gentlemen of the hospital to be requested to point out the one which gives out the least smell.

"6. And, for the removal of any partiality, those giving their opinion not to know until the opinion is given to whom such or such a basin belongs.

"7. A written deposition to be made out and signed by those giving their opinion.

"And it having further been proposed by Dr. Stratton, R.N., that, as one of the fluids changed fæculent matter to a whitish colour, it would better secure an impartial opinion if the judges would blindfold themselves; this was also agreed to, and, in the presence of witnesses, Dr. Stratton and M. Ledoyen each put in equal quantities of the fluids, and in fifteen minutes after the basins were examined by the umpires; the basins were placed, one on the right hand the other on the left, and some distance apart. If the umpire thought the basin on the right had least smell, he called out 'right,' and so on. All the medical gentlemen in the hospital at the time, except Dr. Stratton, gave their opinion."

It must have been a rich treat to see the gentlemen, with blinded eyes and expanded nostrils, each with a couple of basins filled with the most villanous compounds kept in a state of continual agitation by stirring. According to the intensity of the odour emitted was their judgment to be pronounced; and, upon an examination of the votes, Sir Wm. Burnett was declared worthy of all honour, the majority in his favour being as seven to three.

It would have been well if this species of sanitary quackery had ended here, as the public might have indulged in a hearty laugh at the simplicity of the Government and the ten scientific jurymen. Since then, however, Col. Calvert, whose faith in a solution of nitrate of lead as a disinfecting agent was boundless, has sickened and died of typhus fever. M. Ledoyen also has had an attack of the same disease, and from the testimony of an American journal we learn that he has left Canada for this country. These two gentlemen were both sent out to test the efficacy of certain fluids in destroying infection, and there is no need of the survivor furnishing the Home Government with any elaborate details of the experiments instituted, and of the results which followed. The fate of his fellow-commissioner and his own illness are sufficient proofs of the utter worthlessness of chemical substances in destroying the invisible sources of disease.

The fluids may be useful in mitigating the foul smells which escape from the holds of ships, or from drains and sewers, but they have no power in arresting and preventing disease.

AUTHORITATIVE RECOGNITION OF ADVERTISING QUACKERY.

Our readers have met in one or other of the public journals, in close proximity to some similar announcement of Mr. Morison or Professor Holloway, the following advertisement:—

(*Advertisement.*) — "Operative Surgery. — Amputation at the shoulder-joint in a patient, aged seventy-one, successfully performed under the influence of ether by Thomas Wakley, Esq., surgeon to the Royal Free Hospital; also amputation of the arm in a man, aged seventy-five, under the influence of ether, successfully performed by Thomas Wakley, Esq.: perfect recovery of both patients. These cases exhibit the most extraordinary proofs of the safety and value of the use of ether vapour in operative surgery."

This advertisement, as our readers know, appeared for successive days in the daily *Times* and other popular journals, just about the period when the public was lamenting the loss of that distinguished "operating" surgeon, Mr. Liston.

In the *Lancet* of last week the editor avows, with "pleasure and pride, his connection" with that singular document. Medical men, therefore, are authorized to deduce the following:—To get up a surgical practice for a son, the entire agencies and influence of a medical journal may be legitimately and properly exercised by a member of the profession extending and propping up a system of exaggerated eulogistic advertisements. We can conceive no better test of the power of medical men's endurance.

"THE BRITISH AND FOREIGN MEDICO-CHIRURGICAL REVIEW" AND MR. MARKWICK.

[To the Editor of the Medical Times.]

Sir,—I have just seen a review of my work "On the Urine," in the above-named journal, which I think it necessary to notice, as I consider the critic to have been unnecessarily severe, and, indeed, *unjust*, in his remarks, as he himself will, I am sure, conscientiously acknowledge. I, therefore, Sir, appeal to your well-known sense of justice to allow me a short space in your valuable and widely circulated journal for that purpose.

The charges against me are—errors in judgment, an error in chemistry, and errors in typography. The errors in judgment consist in giving *six* instead of *four* processes for the detection of bile; and "a notice of the formulæ for calculating the amount of sugar by means of Biot's polarising apparatus," after having previously given an unfavourable opinion of this mode of analysis. My reply to this is, that my object was to render the "Manual" as perfect and complete as possible, in order that the student might make himself acquainted with *all* the analytical proceedings that have been recommended; at the same time I took care to distinguish those that are little to be relied on.

The error in chemistry is not mine, the paragraph in question being a quotation, and therefore the critic (he will excuse me for saying this), before he ventured to accuse me, should have first satisfied himself that he was justified in doing so. I admit that the error ought to have been corrected, and it was my intention to have done so in the following manner:—Ammonia, q. ammonium. Still, however careless this neglect may have been on my part, I think the reviewer must admit that it is much less excusable on his to alter my words, or rather the words of the quotation, as he has done by substituting *organic acid* for cyanic acid; and "I trust he will accept my assurance that I could not have acted otherwise" than allude to it.

As regards the errors in typography, they are owing, in a very great measure, to the carelessness of the printer, who did not pay that attention to my *corrected* proof sheets which he ought to have done; but I may mention, in extenuation of this fault, that it is not *always* possible to avoid them, as proved by the following, which I have met with in the *Journal itself!* in a cursory perusal of a portion of its contents. Thus: *Blenorrhagia*, pp. 38, 39; *hemorrhoids*, p. 38; *chymico* in one line, and *chemico* in another, p. 94; *hæmaturia*, p. 123; *hemorrhage*, p. 164, &c.; *asert* for assert, p. 251; *nflammation*, p. 181, "strike the eye of the reader somewhat unpleasantly, and are errors which might have been avoided by a very little care."

In conclusion, I may observe that it is somewhat surprising that in an article in which so much unnecessary fault, as I think, is found, and that in matters of such trivial importance, an error in *grammar* should have occurred; and yet such is the case, the word *doubt* having been used instead of *doubted*.

"Considering, then, that notwithstanding the severity of the criticism to which my work has been submitted, and the errors which, *it is alleged*, I have committed in it, namely, errors in judgment (disproved), an error in chemistry (disproved), and errors in typography (admitted), not a single important mistake has been discovered in it, I think I may venture to assert that my object in publishing it ("to present the student with a manual or pocket companion on the examination of the urine that may be useful to him while prosecuting his hospital studies") has been fully realised, as proved by the subjoined "notices" from other reviews. (a)

I am, Sir, yours very obediently,

Jan. 3. A. Markwick.

QUACKERY, AND IMPROPER USE OF CHLOROFORM.

[To the Editor of the Medical Times.]

Sir,—I have no doubt that you and every honourable member of our profession must feel disgusted with the all but universal system of quackery, in one form or other, which has for the last several years stained the fair page of medical literature. But the most degrading of all is that which we see daily exemplified in the metropolitan and provincial newspapers by the numerous puffs sent forth for the benefit of the non-professional reader.

The past history of ether furnishes innumerable examples of the abuses to which I allude; but, as its use is likely to be superseded by that of chloroform, I would earnestly call upon you, and all honest men, to save the latter from oblivion.

In a late number of the *Edinburgh Advertiser* we are gravely informed that a "Dr. Fowler *succeeded* in reducing a dislocation of the shoulder-joint of twelve hours' standing, while the patient, a healthy labourer, was under the influence of chloroform." Oh, ye tyros in surgery, read and admire! Did the learned brotherhood keep to surgery we might almost pardon their vanity—a natural one—to see their names in print; but when these worthies announce their success in midwifery in terms somewhat too professional for the modesty of the fair sex, they are unpardonable. And yet this species of squib is an every-day occurrence in the Edinburgh papers.

Another equally disreputable practice has assumed the form of a mania in Edinburgh, certainly not less exciting than the late railway mania. It consists in converting fashionable evening parties into a species of pharmaceutical association for experimenting on the effects of chloroform, and other substances of similar properties. One of these exhibitions is worthy of notice.

A number of ladies and gentlemen were invited to an evening party in the house of a respectable medical practitioner. At ten o'clock, instead of

(a) "Mr. Markwick's little work appears to us to be very well calculated to fulfil the object for which it was published. It contains, in a concise form, a description of every substance that has been discovered in the urine; the mode of detecting and distinguishing each is detailed in clear and unambiguous language; and, although addressed especially to students, it contains almost all the information upon these matters which the practitioner requires."—*Dublin Medical Press.*

"The chemical processes recommended are simple, yet scientific; and the work will be very useful to the medical *alumni*, for whom it is intended; and not to them only, but to those practitioners in the country who have not had those opportunities of cultivating chemical pathology which their more favoured brethren of the metropolis enjoy."—*Medical Times.*

"We have the opportunity of calling the attention of our readers to a small work recently published by Mr. Markwick, intended as a manual for the use of students in urinary diseases. * * The author must be admitted to have attained his object in presenting a convenient bedside companion."—*Dr. Ranking's Abstract.*

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music and dancing, the learned doctor entered with flask and sponge, and every guest was treated to a trip to the realms of insensibility. Some of the ladies were foolish enough, while there, to utter such speeches as, "Oh! my beloved Charles, come to my arms," at the same time unwittingly extending them to receive the dear creature. Some of the gentlemen, not having taken the precaution to swallow a seidlitz or a carminative previous to their first appearance, committed slight breaches of etiquette not very amiable; but enough on this head.

Dr. Simpson has done much for our profession, he has done more for suffering humanity; and the ladies must feel grateful for his unceasing exertions to render their travail pleasant, and their burden light. To him I would also appeal for the protection of his valuable discovery, that its use be not subverted, its usefulness destroyed, and its anæsthetic virtues prostituted to the vilest of purposes. For, most assuredly, the very properties which constitute its superiority over ether are those which make it more dangerous in the hands of unprincipled and non-professional individuals. Its use will not now be confined to the operating-theatre, or large parties, or the chamber of suffering. It will, in all probability, take its place on the toilet table between sal volatile and eau de Cologne, and, in consequence, the most ruinous effects both to health and character are to be dreaded.

Should you consider this letter of sufficient importance to occupy a place in your journal, it is entirely at your service.

I am, Sir, your obedient servant,

A HATER OF HUMBUG.

COMMENTS ON MR. GREEN'S EVIDENCE BEFORE THE SELECT COMMITTEE.

[To the Editor of the Medical Times]

SIR,—Mr. Green's evidence before the parliamentary committee exhibits the most remarkable inconsistencies. This is a matter of course, when a man is trying to prop up a vicious system; but, in the present instance, these inconsistencies are so glaring as to be positively ludicrous.

He suggests four examining boards, and yet says that "care must be taken not to render the education of general practitioners too expensive."

He says that the establishment of a low standard would be "dangerous to the public," and yet he thinks that a low standard ought to be established for the education of the general practitioners, who have the medical care of ninety-nine hundredths of the public. He considers it an evil that a variety of subjects should be required by the Society of Apothecaries, because it prevents the students from attending to surgery exclusively, as if pure surgery was the only requirement; whereas, for one surgical case in general practice we have twenty medical ones.

Now, Mr. Green's pretended reason for a cheap and inferior education is, that the public want cheap physic. Is it true that professional profit is, as a general rule, in direct proportion to the amount of education? Mr. Green can hardly be so *green* as to think so. Let him look at the hundreds and thousands of poor clergy dotted all over the country—Oxford and Cambridge B.A.'s and M.A.'s,

"Passing rich with fifty pounds a year."

And, in our own profession, I verily believe that as "qualifications" increase, profits diminish. My predecessor in this place saved £4000 in sixteen years, and he had no "qualification." I am a legally qualified man, and after fourteen years' practice have not saved a penny, though I am sure I work as hard as he did. And my neighbour, the butcher, with ten children, is laying by £100 a year, though he cannot spell beef-steaks; yet he never works on Sundays, and is never called up o' nights like poor me.

This is an absurd fallacy on the part of these big-wigs. The profits of labour depend more on the supply of labourers than on the amount of their education. Your readers will admit that I am entitled to speak feelingly on this subject, when I say that I have a brother, who, though an Oxford M.A., was for years obliged to be content with less than £100 a year, and that I have myself the misfortune to be obliged to officiate as

A UNION MEDICAL OFFICER.

Scrubbington, Lincolnshire, Jan. 10.

INFLUENZA.—This epidemic is rapidly diminishing at Inverness, but typhus has become prevalent, some having already fallen victims to its ravages.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Continued from page 246.)

FRENCH MEDICAL EDUCATION.—I do not object to cheap medical education if that medical education be good, but you cannot have good medical education except at considerable expense. I do not know very well the system in France, but I have some general notion with respect to it; but I take it that that is not exactly the one we should imitate; the medical profession in France does not seem to hold a very high grade of respectability. You may have men of science here, and men of science are very highly esteemed; and so it is in Germany, you have many as professors very highly esteemed; but I speak with respect to practitioners who are employed by people in general; they have cheap doctors on the Continent, and, as far as I have seen, they are not much regarded; I do not mean the Officiers de Santé, but the physicians. I am aware that there is a proposition now before the French Chambers for getting rid of the Officiers de Santé, and for requiring that they should all take out degrees in medicine or surgery before they are licensed to practise. I do not see any objection to such a plan; the Officiers de Santé were very badly educated. You must have a certain amount of qualifications, in order that the public may be treated with safety.

A SINGLE FACULTY INJURIOUS.—I said that by the single-faculty system the education of all would be reduced to the lowest. The College of Surgeons was originally on one system, all, in fact, were members of the college. Under that system men attained as high distinction and as high repute as it was possible for them to reach in the surgical profession. That was not exactly the one-faculty system with regard to surgery; practically there was a great distinction. You will recollect that only those who had been hospital apprentices were elected to be surgeons of hospitals, and only hospital surgeons were elected into the council. That was not under the operation of the charter; in the charter there was no provision of that kind, but it was merely an arrangement which was adopted by the council; the council being at that time chiefly themselves hospital surgeons. Sir Astley Cooper was never higher in rank than member of the college. Nor was Mr. Abernethy. Nor was John Hunter; but when I say that the one-faculty system would lower the profession, I mean that it tends to lower it; but you will always have individuals who, from natural capacity, genius, and particular opportunities, will distinguish themselves. I say that all would fall to the lowest standard; yet I find that a totally different effect from that is produced in the college by the creation of the fellowship; it has produced emulation, and many are seeking to attain that distinction. It is not true that all are anxious to keep at the lowest level. I am speaking here of the tendency of a system; I am not speaking of individuals. Perhaps I should better explain my meaning if I were to state, that in my opinion, even if you were to do away with all laws upon the subject, things would remain precisely as they are; that is, the grades and distinctions in the profession would remain practically the same. I mean that if all the acts of Parliament on the subject were repealed, and all the charters abrogated, things would remain precisely as they are; the needs of society and individual exertion would supply their place. I do not mean that apprenticeship would go on, if the Apothecaries' Act were abolished. If there were no legislative interference, practically you would find the profession very much in the same state as it is; you would find persons devoting themselves to physic, others devoting themselves to surgery, and you would have general practitioners and apothecaries, druggists, and so on.

MEDICAL LEGISLATION REQUISITE.—I do not object to legislation on the subject of the practice of medicine; I believe that many evils may be corrected, but that you would have very much the same results if there were no legislation whatever. The present state of the medical law I deem in many respects to be defective. We have to correct evils that legislation has introduced, and to organize a system which cannot work harmoniously without legislative interference. The effect of this bill, which has a tendency to create a single faculty, would be to lower the status of the profession, and it would have the effect of lowering medical education to the qualification of the general practitioner. But the experience which I have had in my own college, where there is one standard of education adopted for members and another standard of education adopted for fellows, convinces me that some practitioners of ambitious minds and considerable acquirements would not be content with the lowest position in the profession. If the bill which has been introduced into Parliament in the present session were to be enacted into a law, I do not consider that the present arrangements of the College of Surgeons would be disturbed by its operation, except it were thought necessary to send the inspector to us. I do not know of any other interference that there would be with our arrangements.

EFFECTS OF THE BILL.—We should still examine for members, and still examine for fellows, and the two parties would hold their respective ranks. I do not know that whatever emulation now exists with reference to obtaining a higher position would not be disturbed or lessened in any degree by the operation of this bill. I should say that the tendency of this bill is to destroy the desire to become members, still more to become fellows; but it would not prevent persons if they chose to come, and if they thought it an advantage they would come; they are not forced to come now. It is voluntary at the present time. But they apply for the diploma of the college in consequence of the high distinction which it confers upon them. I should think, from what I have read in that bill, that that inducement would be lessened or weakened. I conceive that no one would seek a distinction which is expensive or troublesome, when he can obtain the same advantages without it. Now, the principle of this bill is to effect a registration, and a party can be put upon that register without any such means of distinction, and he gets that distinction, which his diploma would otherwise give him, in a cheaper and easier way; another thing is, that by the law at present certain persons are obliged to come to the college, who mean to be surgeons of unions or of prisons, but the bill repeals all previous acts of Parliament: the registered practitioner is qualified, under this bill, to practise in any department of his profession. I object to that arrangement; and my objection lies not in the registry, but in the want of any provision for ensuring an adequate qualification in those licensed to practise. I approve entirely of the principle of registration, as being most beneficial to the public. I am aware that the bill provides that all the *curricula* of education of candidates shall be submitted to one authority, and that none of them shall have any force in any institutions until they have been approved by that authority. I consider that there ought to be a central control of that kind with reference to medical institutions, those especially which are empowered to grant medical degrees and licences; it would be highly beneficial; but with regard to the provision in the bill, I object that that authority should be the Queen in Council or the Secretary of State. I approve of the power being bestowed on a Council of Health, consisting partly of medical persons and partly of non-medical persons. I would confer the power of appointing such a council upon the Queen in Council and the Secretary of State. I stated before that the inspectors under this bill would not be proper persons, inasmuch as they would be appointed by the Secretary of State. I saw the last bill which was introduced by Sir James Graham, in July, 1845; I read the bills over at the time, and considered them at the time, but I did not know

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that I was to be examined on this point, and therefore I have not read them since.

(Joseph Henry Green, Esq., F.R.S., called in and further Examined.)

Sir J. Graham's Bill of 1845.—When I was examined on a former occasion, I stated, in reply to the last question which was put to me, that I had read over the bills which had been introduced into Parliament at the time when they were introduced, but that, not knowing that I should be examined on the subjects of them, I had not read them lately. I have read them since I was examined. I have referred particularly to the bill of July, 1845. I have a copy of that bill with me. I find in clauses 2 and 3, page 3, that a Council of Health was to be constituted, consisting of thirteen persons, one of them being one of the Principal Secretaries of State, and twelve to be appointed by her Majesty with the advice of her Privy Council. I remember that the bill containing that proposal was before the council of the College of Surgeons. It was not altogether approved by the college. Those clauses were approved of, to the best of my recollection. Previously there had been much discussion on the proposition for giving to the Crown the entire appointment of the Council of Health, there being no person in that council chosen by any of the colleges. In the previous bill, or in the one before it, the constitution of the Council of Health had been different. There were *ex-officio* members from different universities and colleges. And that arrangement in the last bill was altered. To the best of my recollection, it was entirely approved of by the council of the College of Surgeons, leaving the appointment entirely with the Crown ;there being no provision whatever in those clauses for there being an *ex-officio* member from any medical body, or any elected member from any medical body.

Sir James Graham's Bill of 1845, compared with the Medichl Registration Bill.—Previously there had been discussions upon the subject, but I do not recollect, when this bill was read before the council, and gone over clause by clause, that any discussion arose upon the subject at that time. In the bill which was introduced into Parliament in the last session, the supervision of the colleges with regard to the curricula was to be confided to the Queen in Council, and I objected to that arrangement. I now see that there is some apparent incongruity in my answers to the questions on those points certainly, but the principle seems to be different. In the first place, that is to say in the bill of July 1845, persons were appointed who would be known to the country, and for the appointment of whom the Secretary of State would be at once responsible in his place in the House of Commons; whereas, under the provisions of the last Medical Registration Bill nobody would know who was to be sent as an inspector. The Secretary of State might send his family medical attendant, or somebody who was not at all known or responsible, and might immediately, from the account and report of an unknown person, adopt measures which would be perhaps very disagreeable to the council, and perhaps not very just. But supposing the Secretary of State, under the operation of the bill of 1845, were to receive reports from his inspectors, he would then refer those reports entirely to a board of his own choosing, and there is no provision in the bill, certainly, for the appointment of any medical men; but at the same time one cannot suppose that, where the names of the persons are known to the whole country, the Secretary of State could appoint persons who were unfit for the trust. I would not have any security for knowing the names until they were appointed; but being appointed they would be known, and, therefore, any objections to them might be stated as to their unfitness. What I fear then is, that under the operation of the last bill which was introduced into the House the Secretary of State, on receiving the reports of the visitors, might be influenced by private advice insidiously, and sometimes with a sinister object; and that we would have no security that the advice received by the Secretary of State, he not being himself acquainted with medical subjects, would refer to persons of competent authority and judgment on such occasions. I prefer for such arrangements the constitution of a Council of Health. But I think it advisable that security should be taken in any measure that might be introduced into Parliament for providing that that Council of Health should consist of competent medical men. It would be very desirable, but the difficulty is to know how to appoint by any other mode than by nomination by the Secretary of State, or by the Crown, persons who would be fit, without involving great difficulties, as was seen in the appointment of *ex-officio* members. Election by the different medical authorities of the universities and the colleges was considered, but there is very great difficulty in the way of it, as I think you will see when you come to consider it. In London you have a College of Physicians and a College of Surgeons. Then there was proposed by the bill, what I did not at all approve of, a College of General Practitioners. Then there are the Universities of Oxford and Cambridge, the colleges in Edinburgh, and the colleges in Dublin, which already make up a very considerable number, without mentioning other parties, who would claim a share in the election. My objection was chiefly directed against the *ex-officio* members, because you will admit that a man might be a very good regius professor of medicine, but he might be very incompetent to act in the Council of Health as one of a government for medical education, but there are difficulties likewise with respect to the election of others. But supposing a law were to be enacted, empowering the different colleges and universities to select a person whom they deemed to be competent to represent them in such a council, we, not looking to other institutions, could satisfactorily conduct such an election or choice in our own institution; but I am afraid, in order to satisfy all parties, we would have very unwieldy board. My answer would depend very much upon the number that you propose for the constitution of the Council of Health. I think it would be difficult to balance the powers with regard to the conflicting interests. I cannot say that there has not been some discussion, with reference to the possibility of reconciling those conflicting interests in the governing bodies of the profession, but I do not recollect anything like a resolution, or any opinion that was given by a majority; anything that I could state to be the opinion of the council. That is a difficult question to decide, whether those conflicting interests have their foundation in reason or in prejudice? But if I were to answer, I should say in prejudice.

Education of General Practitioners.—I do not consider that there should be very striking distinctions in the mode of educating medical practitioners. In all the elementary branches I would make no distinction. The point at which the distinction must be made, I do not say should be made, with reference to persons who are to practise as physicians, others who are to practise as surgeons, and the great body who are to practise as general practitioners, is that at which the needs of the candidates and of society point out that you must have a class of practitioners who possess only the minimum qualification which is required for their being safe practitioners, and at which it is desirable for the interests of the profession and of the public, that motives should be held out for evolving the highest attainments that you can. I think that, having secured to the public a competent number of qualified men, other inducements should be offered to push the mental acquirements of a certain class to the highest possible point.

Expenses of Education.—I am not aware that the education of the general practitioner is more costly than the education of the last physicians. I have never estimated the expense. It is not a subject to which I have turned my attention; but I apprehend that it would be found that the chief expense of medical education is in the time that it occupies, not in the expense for the actual teaching. I suppose that the whole of the education of a general practitioner in respect to the payment of fees for lectures and attendance at the hospitals would not amount to £100. Our own regulations require now a three years' residence in London. The apprenticeship clause of the Apothecaries' Act requires that a period of five years should be passed as an apprentice; and in order to be bound an apprentice the individual often pays a very high premium. And thus, according to the act of Parliament, and to the regulations which are founded upon that act, at least eight years are expended by the general practitioner before he can pass the Apothecaries' Hall; and then he also has to comply with our regulations with reference to becoming a member of the College of Surgeons, that is, if he is to hold the joint qualification. I am not aware of any expenditure equal to what must be incurred by the occupation of such a period of time in medical study which is incurred by the mass of physicians who are graduates of medicine in universities generally. I have not entered into any calculation of that kind, therefore my evidence would be, I apprehend, of very little value upon the point. When I stated that the arrangements must be regulated by the needs of the practitioners and the wants of society, I was chiefly pointing to the pecuniary means of persons who were engaged in medical studies. I really have not given my mind to the point so as to be able to say whether the expenditure incurred by the great body of the graduates of medicine exceeds that which is incurred by the great body of those who become general practitioners; but certainly I am surprised at what has been now stated.

(To be continued.)

ALLEGED NEGLECT OF A MEDICAL OFFICER.

An inquest was held at Croydon, on the 3rd inst., on the body of a woman, who died on the 30th ult. The features of the case will be at once perceived in the following evidence:—

The witnesses were the deceased's husband or paramour, and her sister. Their evidence proved that Mr. Berncastle (who, in conjunction with his partner, Mr. Bottomley, fills the situation of medical officer to the Croydon Union), when first requested to attend the deceased, asked if she had an order? The reply being in the negative, he said one must be procured, but meantime he consented to visit the deceased. He did so thrice, on that and the succeeding day, as it appeared, on the supposition that an order would be procured. On each occasion of Mr. Berncastle's visit he found the labour had made but little progress; in consequence he ordered the secale cornutum. The last time of his visit the labour had slightly progressed; and he remained with the patient nearly two hours. Up to this time he had considered the case a parochial one, but being afterwards informed to the contrary, by the relieving officer, he recommended the husband of the woman to seek some other medical man, and he named four. Mr. Berncastle heard shortly after that Mr. Dale, assistant to Messrs. Fletcher and Neville, was in attendance on the patient, and he considered, therefore, that his responsibility had now ceased. On the morning of the 29th, about three o'clock, the woman was delivered of a dead child. Mr. Dale left her tolerably composed. Mr. Neville visited her the same afternoon, about five o'clock, when she was worse, and the woman, gradually sinking, died on the morning of the 30th ult.

Mr. Neville appeared with the result of his examination:—The heart and lungs were perfectly healthy, with one exception—an adhesion of the left lung, indicating former inflammatory mischief. The abdomen and its contents were generally healthy; the uterus of the usual size, tolerably well contracted, and presenting no remarkable appearances. Mr. Bottomley (the partner of Mr. Berncastle) and Mr. Dale (wit-

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ness's assistant) were present at the examination. The examination of the head was thus described: A general fulness of the vessels of the brain and bloody points more apparent than usual; the brain itself firm, and no inflammatory action had been set up. Witness considered the condition of the brain was the natural consequence of excitement and consequent exhaustion. The deceased appeared to have been a very healthy woman, and witness found no appearance of disease which might account for death. He believed she died from exhaustion arising from protracted labour. He should not have felt himself justified in throwing up any case after having once undertaken it. Witness could not say whether the deceased might have been relieved earlier, not having seen her until after parturition had taken place. Dr. Chalmers was called in by witness in consequence of a slight dispute as to the appearance of the deceased's liver at the first examination.

In reply to Mr. Richards, solicitor for Mr. Berncastle, the witness said he did not think it would have been advisable to use instrumental aid from what he had heard of the case.

It was here proved by Mrs. Arthur, who was recalled, that Mr. Berncastle had administered to the deceased three doses of secale to force her "pains" before he finally left her.

The Coroner then asked if there were any other witnesses.

Mr. Richards said, Mr. Berncastle was ready to be examined, and to state all that he knew of the affair.

The Coroner said, he could not examine Mr. Berncastle after what had transpired. If Mr. Berncastle chose to make any statement, however, and was prepared to meet the consequences of that statement, he should not object to receive it.

Mr. Berncastle preferred giving his version of the circumstances, which was, in substance, as narrated above.

After a good deal of discussion as to whether other medical evidence should be called, Dr. Chalmers was sent for. He said that knowing the history of the case, and having been present at the *post-mortem* examination, he should say that the congestion of the brain discovered was caused by excitement arising from the protracted labour, which would also produce great debility and exhaustion. A very similar state of the brain might be produced by puerperal convulsions. Witness had been forty-six years in practice, and did not consider it either prudent or judicious to leave a patient from four to twelve o'clock in the state deceased was described to have been.

Mr. Tipple, surgeon, of Mitcham, was, at the request of Mr. Berncastle, here called. He said, he considered Mr. Berncastle fully justified in leaving the deceased as he had done, as she had no "order," and further, that he thought he had been very kind to give up so much time to her.

The Coroner charged the jury in a very clear address, pointing out the law of the case, and advising them, if they considered any legal responsibility rested upon Mr. Berncastle, to say so in their verdict.

The jury remained in deliberation from nine o'clock until half-past eleven, when the foreman announced the following as the unanimous verdict of the jury:—"That Elizabeth Hopkins *alias* Howard died from exhaustion resulting from protracted labour; and that Mr. Berncastle has shown the greatest inhumanity towards the deceased in leaving her when in labour; and that we (the jury) consider him a very unfit person to act as a parochial medical officer."

GOSSIP OF THE WEEK.

Deaths by Fever.—It is our melancholy duty to record the deaths of four of our medical friends, who, within a few days, have been sacrificed to fever, with which they were afflicted during the discharge of their professional duties:—On the 23rd ult., Dr. George Seymour, surgeon to the Kilconnel Dispensary; on the 24th ult., Dr. Charles Donnollon, of Winterfield, medical attendant to the Annadown Dispensary; on the 25th ult., Mr. Francis Bodkin, for many years apothecary to the Clifden poorhouse; and on the 26th ult., Dr. Edward Lambert, of Oranmore, a gentleman much beloved, leaving a widow, with a young and interesting family, to deplore his loss. Independent of the above, we are sorry to add that serious apprehensions are entertained for the recovery of Dr. Mulville, of Gort, and Dr. Hynes, of Kinvarra.—*Galway Vindicator.*

Mortality of Medical Men.—We lately felt it our duty to make some strictures on the wretched and niggardly manner in which the physicians who attend upon the poor are remunerated by the authorities for their toil, and science, and fearful exposure to danger and premature death. The subjoined paragraph from the *Sligo Journal* gives an example of the heavy mortality which prevails in the profession, especially at seasons of contagious disorder:—"We have just seen a document forwarded by Dr. Little to Drs. Cusack and Stokes, giving a statistic report on this subject. It will be seen that, since the present epidemic set in, twenty-seven medical men attending the poor within their houses, or in the different fever hospitals of this province, have been attacked with fever, that seventeen out of that number have died, leaving nine widows and thirty-five orphans. This is an awe-striking, appalling fact; nearly one half of those men, who are hourly exposed to the danger of contagion from the circumstances of their profession, taken away in the prime of life, leaving nine widows and thirty-five orphans, many of whom have been left in destitution, to lament their loss. Surely there is no profession in life to which the public owe so heavy a debt of gratitude as that whose members so humanely and deservingly continue their philanthropic labours, even in the face of such serious perils." The fate of widows and orphans left destitute by their natural guardians—by disorders caught while in the service of humanity—pleads strongly or a change in the present unjust and mean system under which those gentlemen have been taid for their valuable and onerous labours.

Sanitary Reform.—The French Government has sent two physicians, MM. Villemain and Prat, to study the sanitary condition of Cairo and Alexandria.

Death of M. Jourdan.—M. Jourdan (Antoine Jacques Louis), doctor of medicine, &c., died at St. Maude, Jan. 2, 1848. He was an indefatigable labourer, having made a great number of translations from the German on the different subjects of medicine. Among these are the works of Sprengel, Meekel, Hufeland, Carus, Tiedeman, Burdach, Müller, and the "Encyclopédie Anatomique."

M. Berzelius.—From recent information we learn that the health of M. Berzelius is somewhat improved.

Smallpox.—This disease has manifested itself with considerable virulence at Vienna; and in the neighbourhood of Chatellenault especially, the inhabitants were suffering very severely.

Inauguration of the Statue of Vesalius.—On the 31st of December the ceremony of the inauguration of the statue of Vesalius took place at Brussels, in the presence of the city authorities and a large number of persons distinguished in the scientific world, especially that of medicine. The statue was erected in the *Place du Barricades*, under the superintendence of a special committee. The Royal Academy of Medicine was represented by its president, M. Velemincks, and by MM. Sauveur, Sentin, De Lavacherie, Lebeau, Tallois, Lombard, &c. M. Charles Rogier, Minister of the Interior, presided on the occasion, and the chairman of the central committee for the erection of the monument delivered a suitable address.

Acute Glanders.—A carrier at Dieppe had at his house a horse affected with glanders, and the man attended him for a considerable time, when, finding there was no prospect of the animal's recovery, it was determined that he should be destroyed. Shortly afterwards the carrier himself was found to be affected with the disease, and he placed himself under the care of Dr. Legal, who very soon discovered the nature of the malady. The patient was also seen by Dr. Riolla, president of the Society of Medicine, and M. Dursaux, veterinarysurgeon, and member of the same society. Under such a circumstance the Society of Medicine announced to the municipal authorities the event, and pointed out the means by which a recurrence might be prevented. The mayor, in consequence, issued an order that all the horses belonging to the inhabitants should be examined, in order to ascertain if any were affected.

Cholera.—From a letter dated Dec. 22 we learn that the cholera has passed the frontiers of Prussia, in spite of all the efforts of the Government to arrest its progress. The first symptoms of the disease manifested themselves in the village of Tilsett, and they are said to be rather mild in their character. The news at present wants confirmation.

Remuneration of Medical Men.—The medical practitioner, particularly the country surgeon, is often very inadequately remunerated for his arduous labours. Within the last fortnight, however, we have an instance of public gratitude, rewarding the long-continued toil of a country practitioner in the district of the Rhins of Galloway. Dr. Robert Wilson, of Stranraer, is about to be presented with a silver salver and one thousand pounds sterling, raised by the public of that district and others connected with it. Much enthusiasm has been displayed by the subscribers, rich and poor, and the money was all contributed in the course of a few weeks.

A whole Medical Staff Anæstheticised.—At the Taunton Hospital, as a patient was undergoing amputation of a limb, while under the influence of chloroform, the nurse let fall the bottle containing the chloroform, which quickly spread its somniferous effects over the operators, and some time elapsed before they recovered from their partial insensibility.

Chair of Clinical Surgery, Edinburgh.—We understand that Mr. John Lizars is a candidate for the chair of Clinical Surgery, to be vacated by the translation of Professor Syme to fill the professorship of the late Mr. Liston, in University College.

Naval Appointments.—Surgeon and Agent: Thomas Massey, for Carlingford.—Assistant-Surgeons: Thomas Littleton, to the San Josef; John E. M'Crystal, and D. W. Stephen, to the Victory; A. Watson, to the Caledonia.

Apothecaries' Hall.—Gentlemen admitted on Thursday, Jan. 6:—David Evans, Llanfyllen, Montgomeryshire; Walter Winter Walter, Stoke-under-Ham, Yeovil; Percival Thomas Meggs, Alverstoke, Hants; Thomas Henry Mitchell, Kington, Herefordshire.

Cloves, powder, six to ten grains in bolus or pill; tincture, ten to thirty drops; a very powerful stimulant, employed as a condiment in domestic economy. *** The essential oil of cloves, which is more frequently employed by perfumers than by physicians, is rubefacient and almost caustic. It is particularly used to allay the pain produced by carious teeth; a drop or two is put on a piece of cotton, and inserted into the cavity.

Drops of Aconitine, five parts of aconitine, and two hundred and eighty-eight of rectified alcohol; mode of exhibition, five or six drops daily.

(from a correspondent.)

Died at Atherstone, on the 28th ult., in his, 90th year, John Power, M.D. This veteran practitioner, having been a pupil of John Hunter, and the disciple of Sydenham, Fordyce, and Cullem, during a judicious successful career of practice in the midland counties, formed a connecting link of the experience of former days, with the improvements in pathology, physiology, and surgery of the present; and which his rare longevity per

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mitted him to practise and appreciate. He was the intimate friend and contemporary of Dr. Erasmus Darwin, whose son, Charles Darwin, he aided in his experiments on pus and mucus, at Edinburgh; and this talented young man died in his arms while they were students at that university. His father, John Power, surgeon at Polesworth, near Tamworth, first introduced the use of the fermenting cataplasm, and is favourably noticed in "Bayle's Biographical Dictionary." His eldest son, Dr. John Power, of Westminster, the discoverer of the theory of menstruation, of which discovery an ungracious attempt has been made of late years to deprive him, and his two grandsons, Dr. John Arthur Power and Mr. Power, as medical teachers at Exeter-hall, are not unknown to the profession. Mr. Joseph Power, formerly tutor of Trinity-hall, and now librarian of the University of Cambridge, and Mr. Alfred Power, one of the commissioners of the poor-laws, in Ireland, and late fellow of Downing College, Cambridge, are sons of the deceased; and three of his grandsons have also taken high honours and fellowships at that university.

MORTALITY TABLE.

For the Week ending Saturday, Jan. 8, 1847.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1364	1107
SPECIFIED CAUSES...	1363	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	420	184
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	80	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	164	175
Diseases of the Lungs, and of the other Organs of Respiration.....	288	225
Diseases of the Heart and Blood-vessels.....	28	39
Diseases of the Stomach, Liver, and other organs of Digestion.....	70	62
Diseases of the Kidneys, &c.	7	9
Childbirth, Diseases of the Uterus, &c	9	13
Rheumatism, Diseases of the Bones, Joints, &c. ...	8	8
Diseases of the Skin, Cellular Tissue, &c.	3	1
Old Age.....		
Violence, Privation, Cold, and Intemperance.....	35	31

DISCOURSES ON THE HEART, BY WARDROP.

Our number for JANUARY 22, 1848, will contain the first part of an elaborate work by MR. WARDROP; entitled

DISCOURSES
ON THE
NATURE AND TREATMENT
OF THE
DISEASES OF THE HEART,
WITH OBSERVATIONS ON THE
ANATOMY AND PHYSIOLOGY
OF THE
ORGANS OF CIRCULATION.

This important work, on whose extreme value to science all commendation is needless, will be published weekly, to the extent of from two to four sheets, and in such a shape that it may be readily separated from the journal and bound into a distinct volume, with its own title-page, index, and paging. It is calculated that this work alone will be worth the whole annual subscription to the journal. Gentlemen wishing to receive this work with punctuality are requested to give their orders immediately to their booksellers, or to forward their orders, with remittances, to our office.

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☞ The subscription for the stamped edition of the *Medical Times* is 15*s.* for the half-year, and £1. 5*s.* for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfrae.

TO CORRESPONDENTS.

"A Constant Reader, Henley-upon-Thames," should send us his address, when an answer by post will be transmitted.

"Galen."—The subject is under consideration. Probably a series of papers will appear in reference to it; of this, however, due notice will be given if such should be the case.

"Mr. Thomas Martin."—A private communication was last week transmitted; if not received, the fault rests with the bookseller.

"S. S., Manchester."—The paper is inadmissible, not possessing all the requisites to make it interesting to the public.

"M.D. Cantab."—The subject will be again discussed at an early opportunity.

"A General Practitioner."—The suggestion on Medical Reform is under consideration.

"A Student of Trinity College, Dublin."—A reference to the "Students' Number" will afford the desired information.

"Mr. Adolphus Rose."—The paper "On the Administration of Chloroform during the Operation of amputating the Forearm," we must decline inserting, as no new facts are made known. The anæsthetic powers of the new agent are now fully established; and it would be occupying our columns for no useful purpose merely to record operations of daily occurrence.

"Argus."—There is no school that we know of for the education of the orphans of medical practitioners. The founding of such an institution would be honourable to the profession, as one is greatly needed.

"Magister."—The lectures will be received both by the College and Hall, and the apprenticeship indentures will not be objected to by the Company.

"A Surgeon in General Practice."—The debt cannot be recovered without the possession of the Apothecaries' licence. Many cases have been tried in the new county courts, and every medical plaintiff has been nonsuited who did not prove that he was a licentiate of the Company.

"Edinburgensis."—"Noad's Lectures on Electricity."

"A Medical Assistant" writes us that he is engaged in a respectable establishment at the West End at a salary of £25 per annum; and that for this sum he has to attend the poorer class of midwifery patients; to dispense for from forty to fifty prescriptions daily, and is only permitted to have half a day's holiday once a month. Our correspondent is certainly to be pitied, and we would recommend him, if he cannot make better terms with his employers, to try his fortune in another situation.

"A Member of the College, Birmingham."—The Apothecaries' Company will not prosecute any qualified practitioner; but a private informer can lay an information, and the Society has promised to assist such by giving advice, &c., if required.

"Amicus."—A medical practitioner possessing only a single diploma is entitled to give evidence in a court of justice.

"N. E."—We do not know what examination is referred to. Gregory and Celsus are the Latin authors used at the Hall. Candidates for membership at the College are only required to have a knowledge of their mother tongue.

"Mr. Wm. Smith, King-street, Belper."—From a press of matter we shall be unable for the present to insert the communication on Lunatic Asylums.

"Mr. J. Clarke Lynton."—The case of compound fracture has been received, and will probably appear next week.

"A Medico-Chirurgical Pupil, Bath."—Quest. 1. In the *Medical Times*. 2. No. 3. Yes.

"A Student and Subscriber."—The diplomas referred to will not confer a right to practise medicine and surgery in France or Spain.

"D.D.D., M.R.C.S., A Subscriber," writes, "Will you be kind enough to give me an idea of the ordinary amount of charges made by legal practitioners in medicine; as in my neighbourhood there are as many modes as doctors?" We cannot; perhaps some of our readers can.

"Rusticus," informs us that "Within the last few days almost all of a family I attend have been affected with a singular kind of eruption, somewhat resembling porrigo serpinosa, and which appears to me to have been produced by actual contact with a diseased calf belonging to the establishment, with the younger branches. It spreads most rapidly, usually commencing on the scalp, and then appearing indiscriminately on all parts of the body; but in no one instance has it appeared in any but those who have actually handled the affected quadruped, not even in the nurses, who are almost always with the children. I have treated it with lunar caustic, both in solution and in substance; ung. hyd. nit. oxid.; tincture of iron; and even chloride of zinc; but all with like effect. As soon as the scab falls off the disease reappears with as much virulence as ever. I send this to your widely-circulating and interesting paper, trusting that you will insert it, not doubting that some of your numerous correspondents will have met with parallel cases."

"A Student of the Hunterian School" writes, in answer to "Detector"—"I can bear witness to the truth of every word of Veritas' communication, and, if the whole of our grievances were stated, a full page of your valuable space would barely suffice to contain them. I can assure you, Sir, that up to the present time, from the commencement of the sessions in October last, we have only had one subject for dissection, and that for several days during that single dissection we had to submit to the indignity of having the bailiff's man at our elbows, in place of the demonstrator. This was well known to Dr. Aldis, who refused to interfere on our behalf, although five pounds would have paid the man out. At length, after the lapse of many days (almost weeks), the students began to exhibit unmistakable symptoms of no longer submitting to be trifled with, and Dr. Aldis did step forward to offer some explanation, which, he knows well enough, was most unsatisfactory, except at the conclusion, when he made certain promises to the students, which were made but to be broken, and to allay the excitement of the well-expressed feelings of the students. 'Detector' must also be well aware of the true cause of the inspector of anatomy refusing to supply subjects to the school. Will he deny that the non-payment had much more to do with it than the room? Will he deny that most disgraceful means have been resorted to, to annoy and remove our much-respected and most efficient teacher of anatomy? Much more might be written, but I sincerely hope, with 'Veritas,' that, before the College recognise the school, they will see that we are not, in the elegant language of one of our teachers, humbugged."

"A Subscriber and Anxious Inquirer."—No treatment but time.

"Homo."—If our correspondent has been a legal practitioner for a considerable period, as he states, and is forty years of age, the College of Physicians, London, will admit him to examination, or he may apply to the University of St. Andrew's. The German universities do not now grant the degree of M.D. without examining first the candidate.

"A Constant Subscriber, Manchester."—The amount of the bill could not be recovered at law by the Surgeon.

"Mr. C. D. Fitzpatrick, Redford-terrace, Bootle."—Communication received.

"Mr. T. H." insists that a contemporary is testing the profession's power of endurance, in the three main articles of "humbug, empiricism, and thorough-paced inconsistency." He appeals to a number of circumstances we need not further refer to.

"Menippus" is very obliging, but we prefer not publishing matter of so personal a character. We have no wish to injure the aspiring young "pugilist"—rather the contrary.

We have been favoured with letters for and against our expressed judgment on the wisdom of Mr. Syme's appointment. We are "of the same opinion still." The system of nepotism and sycophantic, ward-haunting intrigue, by which hospital appointments are so much governed, has been an abuse always decried by medical reformers, and requires as much condemnation now as ever. We have had our differences with Mr. Syme—and hold to them—but they will not prevent from us an honest admission, that the University School authorities have done well to look beyond the miserable circle of family patronage and office-hunting intrigue for the surgeon of their institution.

Letters and communications have also been received from Mr. Morgan, Woodford; Dr. Saunders, Southsea; Dr. Bagley, Filey; Mr. Godwin, Midhurst; Mr. Teare, Ramsey; Mr. Hodgson, Northallerton; Dr. Lee, Ashbourne; Mr. M'Donald, Kippin; Dr. Woodcock, Anstruther; Mr. Scholfield, Todmorden; Mr. Lawrence, Windsor; Mr. Webb, Beaminster; Mr. Broadbent, Altrincham; Mr. Prankerd, Langport; Dr. Macdonnell, Drumnadrochit; Mr. Flockton, Lynn; Mr. Fitzpatrick, Glenville; Mr. Ross, Invergordon; Mr. Freke, Dublin; Dr. Warrene, Hull; Dr. Fixott, St. Helliers; Dr. Smith, St. Andrew's; Dr. Vereker, Limerick; Dr. O'Reilly, Cavan; Mr. Jones, Llandrino; Mr. Ricketts, Droitwich; Mr. Campsall, Chapeltown; Mr. Richards, Bala; Mr. Nicholson, Mauchlin; Dr. Bennett, Kells; Mr. Connor, Moira; Mr. Robertson, Parbrook; Dr. Armstrong, Castletown; Mr. Norris, South Petherton; Dr. Shirley, Lanark; Mr. Hall, Dalton-in-Furness; Mr Sisson, Reigate; Mr. Mullin, New Ross; Mr. Foss, Stockton-on-Tees; Mr. Jones, Strandlaw; Mr. Sumner, Symm; Mr. Rock, Castle Blaney; Dr. Keith, Aberdeen; A Constant Reader, Henley-upon-Thames; Galen; Mr. Thomas Martin; S. S., Manchester; M. D., Cantab.; A General Practitioner; A Student of Trinity College, Dublin; Mr. Adolphus Rose; Argus; Magister; A Surgeon in General Practice; Edinburgensis; A Medical Assistant; A Member of the College, Birmingham; Amicus; N.E.; Mr. Wm. Smith, King-street, Belper; Mr. J. Clarke, Lynton; A Medico-Chirurgical Pupil, Bath; A Student and Subscriber; D.D.D., M.R.C.S., A Subscriber; Rusticus; A Student of the Hunterian School; A Subscriber and Anxious Inquirer; Homo; A Constant Subscriber, Manchester; Mr. C. D. Fitzpatrick, Redford-terrace, Bootle; &c.

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No. 434. **SUMMARY.** Jan. 22.

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ORIGINAL LECTURES.

LECTURES ON GENERAL PATHOLOGY,

DELIVERED TO THE

FACULTY OF MEDICINE

DURING THE PRESENT YEAR,

By PROFESSOR ANDRAL.

Reported for the *Medical Times* by D. M'CARTHY, M.D. Paris, &c.

SECOND SERIES. CHAPTER III.—(*continued.*)

When, during health, a stethoscope is applied upon the course of a superficial artery, a trifling concussion is felt, accompanied by a very slight sound; this sound is modified by certain pathological conditions into which we will now inquire. In the veins also a particular bruit is produced, which Hope, Ward, and others have taught us to detect. The vascular murmurs are soft or rough, they are sometimes cooing, and may be intermittent or continuous, and in this latter case they may be even, or swell at intervals; the intermittent murmurs are arterial sounds; the continuous bruit takes place in the veins.

All the arteries may be the seat of souffle; we occasionally meet with this symptom in disease of the heart, not often in a simple hypertrophy, but constantly in valvular insufficiency. In this disorder the souffle is universally heard in all the arteries. Strictures of the orifices of the heart seldom produce a real bellows-murmur in the arteries. In aneurism of these vessels, a souffle is produced, varying in tone and intensity according to the size of the tumour, the state of the clots which partially fill it, the energy of the impulse of the heart, and the consequent rapidity of the passage of the blood through the sac. Stricture of an artery also occasions this symptom; we again find it, and often with a sawing or rasping character, when the arterial walls have undergone a change in their structure: again it is found when a tumour presses upon an artery and diminishes the diameter of the vessel. In simple arteritis a souffle may be observed, resulting from the morbid roughness of the internal aspect of the vascular tube. The same sign may be detected in erectile tumours and in aneurismal varix, but it is not proved that it can be the consequence of mere spasmodic action of the arterial walls. The diminution of the average amount of globules of the blood may also occasion a souffle in the arteries; we find it frequently in chlorosis, and it may be accompanied by a continuous venous murmur, which is still more characteristic of anemia than the arterial bruit.

SIGNS DERIVED FROM INVESTIGATION OF THE VENOUS CIRCULATION.

We cannot think of separating the history of the signs furnished by auscultation of the veins, from those yielded by the application of the same method to the arteries. During health no sound is produced by the passage of blood through the veins. In some diseases, on the contrary, we hear a continuous murmur due to this cause. This sound varies considerably in intensity, and may be either simply continuous, or present periodical swellings, which indicate the presence at the same time of souffle in the artery and in the vein: it is then called *souffle à double courant*, or *bruit de diable*. In this case, if by pressing upon the vein you arrest the continuous murmur, the intermittent arterial bruit will still be heard, and the nature of the double sound will thus be explained. A sort of cooing is also sometimes detected in the veins, or a buzzing sound; sometimes the bruit is analogous to that which is observed when the ear is brought into close apposition with a large conch or shell; a musical sound is also more frequent in the veins than in the arteries. The continuous venous murmur can be heard only in the neck, in the space circumscribed by the trapezius, scaleni, and sterno-cleido-mastoid muscles, and in the course of the internal jugular vein. When the souffle is heard in the jugular veins, pressure exercised upon these vessels, above the stethescope, instantly arrests the murmur. This sound is more frequent and more strong on the right than on the left side of the neck. If the larynx be gently pushed away while the veins are examined, the bruit will often be found to lose some of its intensity—a fact which M. Donné explains by supposing that the larynx acts as a kind of sounding-board. During effort, the souffle ceases; it is stronger during inspiration than expiration, and is more distinct when the patient stands or sits, than in the reclining attitude: if the head be lower than the body, the murmur often ceases; it is increased by exercise, and diminished by the causes which retard the circulation of the blood in the veins: thus the application of the cupping-boots, invented by Dr. Junod, diminishes its force. Venous murmurs are heard only in one condition of the system, viz., anemia. They are constant when the globules of the blood descend below $\frac{80}{1000}$, and never exist when they average above $\frac{108}{1000}$. In the anemia consequent upon saturnine intoxication, profuse hemorrhage, or convalescence, they may also be detected. When the fibrine or albumen of the blood only has decreased, we find no morbid sounds in the veins; in simple neurosis we do not meet with them, but we find them when neurosis is complicated, as it often is, with anemia.

For the purpose of explaining these vascular murmurs, various experiments have been instituted. Thus fluids of different density have been propelled through elastic tubes, and on applying the stethoscope no sounds were heard when the density of the injected fluid was considerable, whilst a souffle, more or less distinct, according to the speed of the motion, was distinguished when the density of the fluid diminished. These experiments, which have now been frequently repeated, do not explain the reason of the production of souffle, they merely demonstrate a fact; we must leave the solution of the problem to the further researches of natural philosophers.

Inspection of the veins informs us also of some signs of disease. In effort, and when from any cause the circulation of the heart is embarrassed, the jugular veins become distended. In diseases of the heart, or when the pulmonary functions are much disturbed, a reflux of the blood into the veins of the neck is sometimes observed. M. Martin Solon noticed this sign in animals, in the veins of the superior extremity, and also in the abdomen where the circulation was much impeded. Swelling of the veins may result from the pressure of a neighbouring tumour. Distention of the veins of the thoracic walls points to an obstacle to the circulation of the blood in the v. cava descendens, either from the presence of a tumour (usually cancer) in the mediastinum, or from aneurism of the aorta. Very lately Dr. Grisolle met with a case of obliteration of the v. cava descendens from circumscribed phlebitis, accompanied by distention of the veins of the thoracic walls. The veins of the abdominal parietes may also acquire considerable size; in simple ascitis, produced by cirrhosis, or chronic peritonitis, they are seldom much developed; but when they become greatly distended, chiefly on the right side, you may depend upon finding a tumour pressing upon the vena cava ascendens, or the v. portarum.

SIGNS DERIVED FROM THE INVESTIGATION OF THE CAPILLARIES.

The state of plenitude or of vacuity of the capillary vessels is betrayed by the appearance of the skin, which also permits us to judge of the increase and diminution of the globules of the blood. In chlorosis the skin acquires a greenish tinge, and the visible mucous membranes, the inner face of the lids, the lips, gums, and tongue are remarkably pale. In pulmonary consumption the face becomes very pale, and the red patch, so often noticed on the cheeks, is the result of feverishness. Albuminuria, or Bright's kidney, causes a particular paleness of the countenance, which is at the same time more or less puffed. Organic disease of the heart causes frequently an œdematous appearance of the face, but at the same time a certain degree of cyanosis. The face is considerably discoloured in chronic gastritis, but is extremely thin. Plethora produces an unusual redness of the skin; whenever the blood is not properly influenced by the oxygen of the air, whatever may be the cause, the skin acquires a dark, bluish tinge, of a very characteristic nature. We find this colour in diseases of the heart, on communication of the right with the left cavities, and also whenever the venous circulation is greatly embarrassed; we likewise observe it in pulmonary emphysema and in the second stage of Asiatic cholera. It is, of course, to be met with in true asphyxia caused by submersion, strangulation, &c., and in those various forms of intoxication which interfere with a proper oxidation of the blood.

In cancerous diseases, particularly in cerebriform cancer, and when the morbid product betrays a tendency to be developed in several parts of the body, a special straw-coloured hue invades

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the skin, and is too different from the chlorotic tinge to be ascribed to a similar cause.

In various great classes of diseases clinical medicine will point out to you special colorations of the skin. We need only name its yellow aspect in jaundice, and its earthy hue in intermittent fever. Clinically speaking, attention to this point may often be useful: for instance, in the advanced periods of typhoid fever the appearance and colour of the face are quite characteristic; further, in delirium, a valuable sign is furnished by the inspection of the conjunctiva: it is injected in meningitis, and pale in typhoid fever. After the prolonged exhibition of nitrate of silver an indelible bronze colour shows itself upon the skin, a fact which constituted a strong objection to the alleged periodical renovation of our tissues.

SIGNS DERIVED FROM EXAMINATION OF THE SPLEEN.

The spleen is an appendix of the circulation, which will now occupy our attention. This viscus is subject to very rapid variations of size, a fact frequently observed in the early stages of diseased heart. Palpation of the left hypochondrium permits us occasionally to feel the protrusion of the enlarged spleen; but percussion is much more useful than palpation for the purpose of ascertaining its dimensions; and much gratitude is due to Professor Piorry for his able researches on this subject. Percussion shows that, when the spleen does not descend below the margin of the ribs, it still may be much enlarged. We should further be aware that the development of gas in the colon or stomach may conceal a part of the extent of the viscus. Increase of size of the spleen is seldom an idiopathic disorder; cancer of that organ is not in general a primary alteration, but appears only long after other parts have been similarly diseased. Hydatids have been met with in the spleen, and also abscesses. Enlargement of the spleen is, therefore, usually one of the symptoms of another disease. It is found in intermittent fever. Observation teaches us that, when the patients are observed in the incipient stage of the malady, the spleen often does not appear increased in size, but that this alteration occurs if the disease be prolonged. After repeated attacks of intermittent fever, the spleen may remain permanently enlarged, and on dissection it is found indurated, and resembling in colour and density a piece of ham. After pernicious intermittent fever the spleen is found in a state of enlargement, accompanied with softening.

In continuous fever the spleen may also increase in size; this is very common in typhoid fever, and coincides with softening of the organ. This is what observation teaches; but, when we attempt to explain the coincidence of enlargement of the spleen with ague or fever, we are compelled to acknowledge our ignorance. It is certainly not due only to the presence of febrile excitement, for how many febrile diseases could we mention which are unattended with hypertrophy of the spleen—pneumonia, pleurisy, rheumatism, consumption, &c. In general, we may say that, when chemical analysis shows an increase of fibrine in the blood, the spleen is not enlarged; but when, on the contrary, the fibrine decreases, or tends to decrease, the volume of the spleen is usually augmented — *e. g.*, typhus, plague, yellow fever, and scorbutic disease.

In organic affections of the heart the spleen at first rapidly swells or diminishes under the influence of various causes; but at a later period, when the patient dies from the progress of the malady, the spleen is found small and indurated.

We have now examined the signs furnished by the heart, the vessels, and the spleen, and we should inquire into those yielded by the state of the blood contained in their cavities, had we not, during the last session, consecrated several lectures of the first series of this course to that important subject. To those lectures we must refer you, in order to avoid repetition and loss of time.

The alterations of the lymphatic glands are generally signs, and seldom idiopathic diseases. In principle we may state that, when a mucous or cutaneous surface becomes diseased, the neighbouring lymphatic glands, traversed by the lymphatic vessels which originate in the unhealthy portion of skin, are swollen and inflamed. But the lymphatic glands being primarily affected, may still betray a general disease, and are a sign of scrofula.

In our next lecture we will begin the semeiotic history of the respiratory organs.

DUMAS ON ORGANIC CHEMISTRY.

No. XXXV.

(Continued from p. 193.)

THE FABRICATION OF MANURES—(*continued*).

The cubic mètre of carbonized earth, on taking all the necessary charges into account, will cost somewhere about five francs. An establishment of medium size, that is to say, one destined for a city of 20,000 souls, will require, for its construction and preliminary expenses, about 20 to 25,000 francs; to wit, for its furnaces, basins, sheds, machines, and utensils. As to the general expenses of working and of labour, they average, for the entire manufacture, about one franc a year for each inhabitant, which would make an annual expenditure, for such an establishment as we are supposing, of about 20,000 francs.

A manufactory of this size would produce annually close upon 600 cubic mètres of saleable manure, which, at five francs the hectolitre, which is the price of manures charged with three per cent. of nitrogen, makes 30,000 francs. At this price of four to five francs, the manure formed from animalized black might have an advantage over that prepared from dung, for both theory and practice accord in fixing the quantity of black required at twenty to twenty-five hectolitres the *hectare* of land, which would create an expense of 100 to 125 francs; whilst 10,000 kilogrammes of dung would cost 180 francs, and, moreover, would be much more difficult and tedious of transport.

If the animalized black is not, therefore, as perfect a manure as could be wished, yet it forms one of the best modes of turning to account the products of our sewers, and, further, it offers great advantages in regard to its salubrity and readiness of application.

It would be desirable were the municipal authorities, or even the Government, to take decisive measures to compel the owners to construct perfectly water-tight pits, which would allow of no filtration and would keep the contents free from the access of the rain. Their bottom should be made somewhat in the form of a tail-piece. We should thus prevent the great frequency of deaths among the workmen employed in emptying these pits. Were such a plan generally adopted, the vegetable richness of the soil would, in a short time, be completely restored. The immense quantity of concentrated manures, which it would receive, would soon re-establish its fecundity. Both agriculture and hygiène are consequently equally interested in the success of this scheme.

The value of a manure can be decided by one means alone, viz., agricultural experience: this is its final judge; but chemistry may furnish us with useful data, and thus guide us in our application of it to the soil. In fact, the chemist, by an accurate analysis, will determine the nature and quantity of the mineral and organic materials which a given crop shall have abstracted from the land. Should such examination prove a removal of the earthy phosphates, of the alkaline salts, the potass, or the sulphur, it will be necessary to replenish the soil with these products by means of the manure, lest the earth should altogether lose its fecundity. Chemical researches have fully evidenced the part borne by ammonia in manures, and that of azotized matters in general. No doubt can remain on the mind upon this subject; the manures should always contain either ammonia or azotized matters capable of producing it.

But, having got together those vegetable or animal debris which, on incineration, are found to contain the salts required by vegetation or the azotized matters of which it has need, should we, or should we not, submit them to prolonged fermentation? In other words, is the manure of more avail than the litter which produces it? On this point I entertain not the slightest doubt, and I believe all agriculturists are of the same opinion. The manure is much more efficacious than those materials which have furnished it would be in their natural state.

Two causes contribute to this special efficacy. The first is due to the formation of the ammonia, which is generated during the fermentation of the dung, and which results from the reciprocal action of the hydrogen of the water and of the nitrogen of the air. The manure will, therefore, be richer in nitrogen than are its materials, provided the fermentation be carefully directed.

The second circumstance which influences the special activity of the manure, consists in the presence of certain acids which are found there, and which evidently have a great aptitude to seize upon the oxygen of the air existing in the water, and to convert it into carbonic acid. Should the liquid of the manure hold in solution any ammoniacal salts formed by such acids, they tend to give up carbonate of ammonia under the action of the oxygen of the air.

Now, any one may understand that it would be a very different thing for a plant to absorb through its roots aërated water holding carbonate of ammonia in solution, or water deprived of air yet containing carbonic acid and carbonate of ammonia. Such appears to me to be the purport of the manure. It is a product which furnishes, little by little, to the water materials of a very combustible nature, capable of seizing on the oxygen of the air and transforming it into carbonic acid, and which, moreover, contains ammonia and some alkaline or earthy salts.

The manure would render to the earth all that it had lost, provided the agriculturist exported neither corn nor meat. But the earthy or alkaline salts, as well as the phosphates, which the corn or the meat abstracts, must of necessity be renewed. Thus, we are obliged to restore them to the soil by means of bones, urine, or analogous products, which give back to it its fecundity.

Ulmate of ammonia, as a source of carbonates, and perhaps also under other aspects, has been of late years too much neglected; it is certainly deserving of especial attention on the part of agriculturists. Its constant presence in manures is an index which ought to be taken into serious consideration, and which demonstrates the great utility of the previous fermentation of the materials of the manure,—a plan which M. Jauffret so assiduously forced on the notice of agriculturists.

M. Jacquemart, to whom I previously referred, has favoured me with the following remarks on the subject of ammoniacal salts employed as manures:—

"In 1832 and 1833, I was much engaged with the means of extracting ammoniacal salts from matters which were capable of furnishing them in considerable quantity. It appeared to me that there would be great utility in examining whether salts so rich in nitrogen, and which can be procured in such abundance, would not exercise a very beneficial influence over vegetation. To enlighten myself as to the nature of the salt most suitable for this purpose, I analyzed the powdered manure. I discovered that a hectolitre of this powder, weighing 66 kilogrammes, contained in nitrogen equivalent to 4·59 kilogrammes of crystallized sulphate of ammonia; that 53 per cent. of this nitrogen were in the state of ready-formed carbonate of ammonia, and that 47 per cent. were represented by organic matters. This result, and the promptitude with which the action of the powder was propagated through the plants, led me to think that carbonate of ammonia must be very favourable to their development, and that we ought principally to attribute to the presence of this salt the energy of the powdered, as well as that of the Flemish, manure. In fact, in the form in which

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this manure is employed, all the urea of the urine is transformed into carbonate of ammonia, this salt being found there in greater quantity than all others. Circumstances did not allow of my continuing these researches. I proved only that the subcarbonate of ammonia had a very favourable influence over vegetation; but it was not till April, 1843, that I was enabled to make any exact experiments on the employment of ammoniacal salts in agriculture. The objects to which they were directed, were:—

"1. To establish the value, as a manure or stimulant, of subcarbonate, carbonate, and sulphate of ammonia, by taking the powdered manure as a point of comparison. 2. To employ these matters under a small volume and in a convenient form. The powder was employed in the proportion of 20 hectogrammes (2000 litres) the hectare. As we have already stated, a hectolitre of powder represents, in its nitrogen, 4·57 kilogrammes of crystallized sulphate of ammonia; 20 hectolitres, therefore, represent 92 kilogrammes of the sulphate. The proportions of ammoniacal salts were determined in such manner that they contained as much nitrogen as the powder. They were, to the *hectare*:—

	Kils. of the sulphate.
680 litres of subcarbonate in liquor, formed of one equivalent acid, and two equivalents ammonia, representing	92
680 litres of carbonate in liquor, formed of two equivalents acid, and two equivalents ammonia ..	92
92 kils. of sulphate in liquor ..	92

"With the view of transporting and readily applying the solutions of the ammoniacal carbonate, they were caused to be absorbed by dry and porous matters, such as pulverized charcoal or powdered turf. We shall see, when we come to the experiments of October, 1843, that the solution of carbonate may be employed in much less quantity by increasing the richness of the liquor; the volume of this manure can thus be reduced to that of the powder itself.

"The sulphate of ammonia was employed under two states:—1. Dissolved in six times its weight of water, which solution was then absorbed by some dry chalky substance in powder. 2. As a pulverized salt, which was sown like the smaller seeds. Chalk moistened with the solution of the sulphate was employed, from its being previously discovered that, under similar circumstances, a formation of carbonate of ammonia took place. In fact, if we place in a flask some chalk moistened with sulphate of ammonia, we shall have emitted an ammoniacal odour, and litmus-paper, previously reddened by an acid and suspended over the flask, passes to a perfectly blue colour; this reaction is, however, slow. We may then anticipate the best results from a mixture, in which carbonate of ammonia, formed and disengaged slowly, shall present itself to the plant in a nascent state. With a first crop, the result is almost null, but, on the second, it is much more marked. Unfortunately, we were not able to make any observation on the third year.

"Finally, to bring it as nearly as possible to the composition of the powdered manure, which contains a portion of its ammonia in the state of carbonate, and part in an elementary state, we made a mixed solution of sulphate and of carbonate of ammonia, in the proportion of 40 kilogrammes of the former and 60 kilogrammes of the latter, to the hectare. This solution was absorbed by powdered turf.

"All the matters employed in this experiment were sown on the same day—the 29th of April, 1843, at the same time as some oat-seed, and the ground was turned over by the same stroke of the harrow. The spot selected was a piece of wood that had been cleared, it having already borne two crops, and having been previously manured with lime and marl. Each experiment was performed on 250 superficial mètres, and these plots were separated one from another by an interval of three mètres only. The limits were bounded by a line or cord. The crop was collected with the greatest care, and the products accurately weighed:—

Results obtained with the following matters.	Straw, when thrashed, per hectare.	Oats, per hectare.	Proportion of grain, that given by powdered manure being 100.	Relation of grain to straw, the latter being set down at 100.
1. Carbonate of ammonia and charcoal	4300	3200	96·3 p. ct.	75 p. ct.
2. Subcarbonate of ammonia and charcoal	4640	3120	94	69
3. Carbonate and turf	4120	3160	95	77
4. Subcarbonate and turf	4580	3120	94	69
5. Carbonate, sulphate, and turf	3960	2750	88	69
6. Powdered manure..	5129	3394	100	65
7. Subcarbonate, sulphate, and turf	4354	2790	84	64
8. Sulphate and chalk	4060	2634	79·2	66
9. Sulphate in the state of salt....	3725	2410	72·5	64
10. No manure at all ..	3992	2465	71	62

"From these experiments it results—1. That the carbonate and subcarbonate of ammonia, when employed with charcoal, or with turf, give 94 per cent. of product (that from the powdered manure being 100) containing a quantity of nitrogen corresponding to 92 kils. of crystallized sulphate of ammonia, per hectare. 2. That the degree of saturation of the ammonia by carbonic acid has no influence whatever. 3. That the sulphate of ammonia, in the state of salt, yields no perceptible result. 4. That the mixture of carbonate and of sulphate of ammonia gives 84 per cent. as compared to the powdered dung. This figure was deduced pretty accurately beforehand (85 per cent.), from the constitution of the salts entering into the mixture. 5. That chalky matters, moistened with a solution of sulphate of ammonia, yield but 79 per cent.—that is to say, 8 per cent. more than where no manure at all has been employed; this result, so far from the expectations that might have been formed, must probably be attributed to the slowness of decomposition of the sulphate, and to the little time during which the plant covers the soil, a period which is limited to four months and a half.

"The following experiments, however, seem to show that there is some reason for persisting in our trials with this matter. They were made in the autumn of 1843 (October) upon a crop of wheat, and on the same ground as in the foregoing case. Having learned, from our previous trials, that the carbonate and subcarbonate of ammonia gave similar results, we here operated with the subcarbonate alone, but employed a liquor double the strength of the former, so as to lessen the bulk both of the turf and of the mixture itself. As a term of comparison, we took the powdered manure, employed in the proportion of 2240 litres per hectare, and representing in its nitrogen 103 kils. of crystallized sulphate of ammonia. The ammoniacal salts were employed in the proportion of 108 kils. of the sulphate to the hectare—that is to say, they contained 5 per cent. of nitrogen more than the powdered manure. These experiments were performed on the same spot as in the foregoing case; the same marks were made to correspond to the same places; and, in all respects, a similar course was pursued up to the moment of sowing the ground (October):—(Table in opposite col.)

Results obtained with the following matters.	Straw, thrashed, per hectare.	Corn, per hectare.	Proportion of grain, that given by powdered manure being 100.	Relation of grain to straw, the latter being set down at 100.
1. Subcarbonate and turf	2837	1875	94·5 p. ct.	65 p. ct.
2. Powdered manure..	3350	2000	100	60
3. Concentrated subcarbonate & turf	3150	1875	94·5	60
4. Five-tenths subcarbonate, five-tenths powdered manure, and turf	3350	1987	100	60
5. No manure at all ..	2393	1485	73	62
6. Powdered manure.	3375	1970	100	60
7. Half concentrated subcarbonate, half powdered manure, and turf	2975	1750	88 (?)	57
8. Sulphate and chalky matter..	3119	1787	90	57
9. Sulphate in the state of salt....	2675	1412	71	53
10. No manure at all..	2700	1400	70	52

"From these experiments it results,—as with the foregoing:—

"1. That the subcarbonate of ammonia gives 94 per cent. of product, as compared with the powdered dung: this is shown by the experiments marked 1, 2, 3, and 6. The excess of five per cent. of nitrogen, which we employed, had no additional efficacy; probably because it served, by reason of the duration of the experiment (nine months), merely to compensate the difference of fixity between the principles of the two substances.

"2. The third experiment indicates that the concentrated carbonate (400 litres to the hectare) acts in the same manner as that which is more feeble.

"3. The fourth would seem to show that a mixture of equal parts of powdered dung and of turf, saturated with a solution of subcarbonate, should have an equal value with powdered manure. The seventh experiment, however, does not confirm this result; but it is possible that some error may have crept into this latter calculation, for, in the first table, the fourth and seventh do not present any anomaly.

"4. In the eighth experiment, we see that chalk, moistened with the solution of sulphate of ammonia, has given 90 per cent. as compared with the powdered manure, whilst in the first table it yielded but 79 per cent. We must, without doubt, attribute this difference to the fact that, in the one experiment, the matter was made to act upon the plant during a space of nine months, instead of four and a half. It is difficult to say whether the manure, laid down in the spring, could have added any action to that used in the autumn, for it had been buried by the tilling which had succeeded the collection of the first crop. It would have been very interesting to examine the products of a third crop, but we had not the opportunity of so doing.

"5. The sulphate, in the state of salt, as we have seen above, gave no result whatever.

"6. Lastly, if we compare the fourth experiment, in which, in the spring time, the ground was manured with turf saturated with the solution of subcarbonate, and where no manure was applied in the autumn, with the tenth experiment, where no manure at all was employed, either in spring or in autumn, we see that the two products are very nearly identical. Hence, we must conclude, either that the effect of the subcarbonate of ammonia is not felt beyond the first crop, or else that that substance, which was at the surface, had been buried too deeply by the tilling which preceded the sowing of the wheat.

"In fine, it appears to be demonstrated, by the experiments of the spring, and by those of the autumn, that the carbonates of ammonia have a very marked and beneficial influence over the production of the cerealia. That the sulphate of ammonia, in the state of salt, has no action over the same plants, at least under the conditions indicated; probably we might obtain better results by sowing it in the spring time over the cerealia whilst covering the ground, in the same way that it is used with meadow lands—a subject to which we shall shortly refer. That a solution of sulphate of ammonia, absorbed by some chalky matter, conduces to very favourable results, especially when the plant remains a long time in the ground; its action should be studied during several con-

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secutive crops. It is easy to see that the foregoing facts have considerable importance, in an agricultural point of view, and that, even under present circumstances, we may employ the ammoniacal salts with great advantage.

"In the year 1843, wishing to study the action of the ammoniacal salts upon meadow lands, I made use of some solutions of carbonate and of sulphate of ammonia, with which I watered several rectangular spaces marked out on a grass plot. I also sowed some sulphate of ammonia, reduced into powder, in such manner that two equal surfaces, the one watered with a solution of the sulphate, the other sprinkled with the salt, should represent the same quantity of ammonia. The parts watered with the carbonate or with the sulphate acquired, after the space of thirty-six hours, a deep green tint, and became marked out in a very decided manner from the rest of the field. This effect must be attributed solely to the salts, and not to the moisture, for the parts sprinkled with pure water presented no change. After the first shower the parts sprinkled with the sulphate, in powder, became altogether similar to the others. This latter result led me to give up the employment of saline solutions, which present considerable difficulties in application. I therefore propose to experiment solely with the sulphate of ammonia in powder, which should be sown in the same way as the finer kinds of seeds. I have observed that, when the lawn has been mown, and the grass has commenced to shoot up again, it is impossible to distinguish between the parts which have received the salt and those which have been watered with the saline solution; the action of these salts would appear then to be exercised on the one crop only.

"In 1844, I caused to be sown on some meadow land (between the 20th and the 30th of March) some sulphate of ammonia in powder, in the proportion of 90 to 100 kilogrammes to the hectare. Each experiment occupied a space of about one-third of a hectare. After the first shower, the parts thus treated were distinguished from the remainder of the plot by their deep green colour; subsequently, the grass appeared more abundant, but circumstances did not allow of my making exact observations on the products.

"In 1845, these experiments were repeated, the places being marked out by stakes. At the time of the crop I measured to the right and to the left of each spot a surface equal to that experimented on, that is to say, the third of a hectare, and I compared the products of the manured parts with those of the non-manured:—

	Excess of Product with the Sulphate.
First Experiment.—Per hectare, sulphate 100 kils., hay 3·746 kils. .. .. Soft and good earth, hay 2·907 kils.	839 kils., or 29 per cent.
Second Experiment.—Per hectare, sulphate 100 kils., hay 4·956 kils. .. .. Very good soft earth, hay 3·892 kils.	1·064 kils., or 30 per cent.
Third Experiment.—Per hectare, sulphate 100 kils., hay 3·970 kils. .. .. Hard ground, hay 3·450 kils. ..	520 kils., or 15 per cent.

"We here remark that the sulphate appears to have so much more action as the earth is of a better description, that is to say, as it is less hard or clayey, but without being of too light a nature. It remains for us, however, to determine if, with a less quantity than the 100 kilogrammes to the hectare, we cannot obtain equally good results; if, with a larger amount, we cannot obtain better; and, lastly, whether the action of the salt cannot be made to extend beyond the period of a year, especially in argillaceous soils. These are questions that can be resolved only by future experiments."

Another point also left for our consideration is, whether an earth, which is annually manured with ammoniacal salts, would give, during a succession of years, abundant harvests; if its fertility would be sustained; or whether, on the other hand, exhausted by the abundance of its early crops, and not receiving fresh principles, its productiveness would not decline every year.

ORIGINAL CONTRIBUTIONS.

REPORTS ON THE DISEASES OF FEMALES.

By EDWARD RIGBY, M.D.,

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In proceeding with the subject of organic sterility, I come next to consider those cases which are of a less aggravated sort, viz., where the os and cervix uteri are well formed, but so contracted as to prevent the occurrence of conception. This condition is occasionally attended with a swollen state of the anterior lip, and disposition to congestion of the part; the cervix feels hard and tense, and the mucous membrane covering the os is considerably gorged, and more or less studded with granulations, which soon lead to ulceration. The patient complains of pain in the back and loins, sense of bearing down, and many of the symptoms which characterize slight inflammatory action of the cervix uteri and ovary. She has pain on suddenly sitting down upon a hard seat, and on the passage of solid fæces, occasionally darting pains; frequent and sometimes severe pain in one or other ovarian regions, usually the left, and more or less leucorrhœa; with these local annoyances there is considerable derangement of the stomach, liver, and bowels; the tongue is dry and rough, being covered with that peculiar short-napped fur (if I may so express myself) which indicates a state of irritation, especially of the uterine system, in the female; the secretions are faulty; the pulse is weak; the catamenia irregular in time, quantity, and quality, and generally preceded by much suffering. Mere dilatation of the os and cervical canal will frequently produce much relief to all the local symptoms, and as the general irritation resulting from their presence subsides, the health and strength improve rapidly. If, however, the contraction of these parts be very considerable, the dilatation produced by a tent is but of temporary effect; even wearing a metallic plug in the canal for some weeks does not always succeed in producing a dilatation of any permanence, and after a short interval the parts are found as contracted as ever; under such circumstances the division of the anterior lip of the os uteri and corresponding portion of the cervical canal becomes necessary, and is of course a very effective measure. The following case ought, perhaps (from the patient being a single woman), to come rather under the head of dysmenorrhœa than that of sterility, but, being a good illustration of the foregoing observations, I will venture to introduce it here.

S. K., aged twenty-three, unmarried, delicately formed.

June 20, 1846. Complains of dragging pain in the loins, and pain of a lancinating character in the hypogastrium, extending to the thighs. Bowels costive; appetite bad; tongue furred and rough; has pain in the direction of the rectum.

Exam. per Vaginam.—Os uteri low down and tender; uterine sound passed two inches and three quarters towards the left side; menstruated at seventeen, and has continued to do so regularly ever since, except after the first appearance, when it was entirely absent for ten months. She has always suffered severe pain for several days before each period, which is relieved by the appearance of the discharge; the discharge is quite natural.

Hirudines vj. ano; confect. sulphuris co. o.m.

℞. Acidi nitrici diluti, *m.* xv.; ex infus. gentianæ co., ʒjss. ter die.

Aug. 22. Has made but little progress; leeches produced only temporary relief. The os uteri was examined a fortnight ago with the speculum: the cervix was found to be congested, and the os uteri closed; it was again examined to-day: the cervix forms a small conical protuberance, which is greatly inclined to the left side; a small circular depression at its apex marks the os; the mucous membrane is much congested, and somewhat granular; tongue streaky; bowels irritable. Some argent. nit. was applied to the os.

℞. Extr. taraxaci, ʒjss. ter die; ex liq. calcis, ʒjss.

℞. Ext. gentianæ, extr. hyosc., aa. gr. v. o.n. Pt. confect. sulphuris co. o.m.

Sept. 19. Not much improved; asked to have the argenti nitrat. applied, as it relieved her very much; the os uteri, being found much congested, was scarified and bled freely. Contin. med.

26. Was very much relieved by the scarification. She is now half way between the catamenial periods; the discharge last time was very dark, thick, and scanty, preceded and attended by much pain. Tongue still red, glazed, and fissured; bowels more natural. Pt.

Oct. 3. Constant pain in the lower part of abdomen and both groins; darting pains through the pelvis; less pain about the rectum; os uteri was scarified, which was much congested. Pil. hydr. c. coloc., gr. x. o.n. Pt. mist. et confect. sulph. co.

17. Felt much relieved after the scarification, but still has the darting pains, although not so severely; much pain of abdomen when the bowels are moved; bowels open three times daily; tongue better. Rep. mist. confectio et lotio. Applic. argent. nit. ori uteri.

Oct. 24. Feels better in general health; has a thick albuminous discharge; anterior lip of os uteri much swollen and congested; it was scarified, and bled freely. Pt. med.

31. Was much relieved by the scarification; has still shooting pains in the lower part of abdomen. Catamenia came on to-day with less pain than usual, of a much brighter colour, and without exudations; bowels regular. Pt.

Nov. 7. Still complains of shooting pains in the lower part of abdomen, although she feels better in point of general health; tongue better; bowels regular; has much less pain when the bowels are moved. Pt.

14. Complains of great pain in passing water, with frequent desire to do so; urine much loaded with lithates; bowels are confined; tongue tolerably clean; orifice of urethra much congested.

℞. Potassii iodidi, gr. ij.; liq. potassæ, *m.* x.; decoct. sarzæ co., ʒjss. ter die. Pt. confect. et lotio. Applic. arg. nitr. orif. urethræ.

21. Has still darting pains about the orifice of the urethra, although they are less since the application of the nitrate; general health improved; bowels confined. Pil. aloes c. sapone, gr. v. o.n. Pt. alia. I passed a medium-sized metallic tent through the os uteri, which she is to retain for a while.

28. Tent caused much pain for the first few days, but it was near the time of the catamenial period; the catamenia appeared a day sooner in consequence, and rather less in quantity; since then has felt easier, and fewer lancinating pains; slight leucorrhœa; bowels open. Rep. med.

Dec. 19. Has worn the tent a month; general health better, but still has a few lancinating pains; catamenia appeared yesterday, with very little pain, more freely, and of a better colour. Rep. med.

Jan. 16, 1847. Has worn the tent two months; feels little or no pain in the uterus, but complains of much irritability of the bladder, apparently from the loaded and acid state of the urine; bowels natural; frequent cough. Haust. sodæ tartrates t. d.; magnes. carb., ℈j. o.n. Rep. pil. aloes c. sapone. Removed the tent.

23. Catamenia appeared this week, more healthy in quantity and appearance, and with less pain; still complains of darting pains, and much tenderness of the cervix; the irritability of the bladder is less. Rep.

30. The symptoms of inflammation of the

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cervix have increased. Applic. hirud. iv. ano. Rep.

Feb. 18. Complains of much pain; fancies that it is produced by the effervescing medicine; is by no means so well. Pil. hydr. c. coloc., gr. x. o.n.

℞. Potassi iodidi, gr. ij.; liq. calcis et decoct. sarsæ co. aa. ʒ vj., bis die.

20. Catamenia appeared on the 15th, attended with much pain, as also preceded by considerable pain in the loins and back; the discharge stopped yesterday; feels better; has still a sense of throbbing about the anus, and pain on sitting down. Hirud., iv. ano.; decoct. papav. in vaginam injiciend. Rep. alia.

March 13. Complains still of much irritability of bladder and pain in the pelvis.

Exam. per Vag.—Os uteri quite closed; cervix taper and hard; dilator would scarcely pass; I gradually dilated and passed it through the os uteri internum; passed a middle-sized metallic tent without much difficulty, but it caused great pain and faintness; urine still thick.

Rep. pil. alternis noctibus; pt. mistura; sodæ potass. tart. o.m.

20. Feels better; still much pain of back and pelvis; bowels open. Rep. med.; empl. opii lumbis.

27. Catamenia have appeared since last report, with some pain, very dark, but not more profuse than usual; tongue clean; looks better. Rep. mist. et decoct. papav.; extr. taraxaci, ʒ ij. o.n.

April 17. Has worn the metallic tent five weeks; catamenia appeared three days ago; they came on with much pain, but freely, and of a good colour, and still continue; general health much better. Pt.

May 15. Has continued to wear the tent; catamenia appeared on the 11th, with little or no pain; the discharge was much more natural in colour; general health greatly improved. Pt.

22. Feels better; the tent came out yesterday, having been in ten weeks. Pt.

June 5. Feels much better; bowels more regular; has some cough. Rep. sodæ potass. tart. tinctus; extr. taraxaci, ʒ jss.; ex. liq. calcis. t.d.

12. Catamenia have appeared since, with scarcely any pain, and of a much better colour; health much improved; cough much better. Pt.

26. Feels perfectly well, but has a slight degree of bearing down. Pt.

July 3. Feels in better health, but still complains of great bearing down. Pt.

31. Has been at Carshalton since last report, and has returned greatly improved; tongue pale, and slightly fissured. Rep. mist.

℞. Ferri sulph., zingiberis, aa, gr. j.; extr. gentianæ, gr. iij.; extr. hyosc., gr. v. ft. pil. ij. o.n.s.

Aug. 7. Feels well. Pt.

28. Feels well, with the exception of a bearing down, but has no pain; bowels open. Pt.

Sept. 19. The two last catamenial periods have been more sparing; complains of sense of weight and bearing down; motions are taper, as if the rectum were compressed, and attended with a sensation of obstruction; bowels more confined than usual; feels swelled. Rep. mist.; magnes. carb. ℈j. o.m.

25. Much pain and bearing down about the pelvis, increased by walking; is feverish, with much headache. Pt.

Finding that her former symptoms were fast returning, and that the relief obtained by the metallic tent was but temporary, I admitted her into the hospital for women in Red Lion-square, and divided the anterior wall of the cervix and lip of the os uteri; a metallic tent of the same size as before was introduced whilst the wound healed, so as to render the canal permanently open; and, after remaining in the hospital a fortnight, she left, being anxious to resume her work, on which she is entirely dependent.

Jan. 10, 1848. Has worn the tent until now, which is very much longer than I had intended her to do; is well in health; has lost the bearing down, and the catamenia have appeared healthily, and without pain.

15. Has worn the tent ten weeks; is much improved in health; the tent was removed.

In reviewing the history of this case, we find that its prominent features are those which indicate subacute inflammatory action of the os and cervix uteri, producing considerable irritation of the neighbouring viscera, derangement of the digestive organs, and much disturbance of the general health. Dysmenorrhœa to a severe extent also existed, and evidently resulted from the very narrow canal of the cervix and small os uteri obstructing the discharge of the catamenia from the cavity of the uterus. The cavity itself had become enlarged by frequent distention at the catamenial periods, as indicated by the measurement of the sound—viz., two inches and three-quarters instead of two inches and a half; to which circumstance may also be attributed the inclination which it manifested towards the left side. I at first treated her merely for the prominent symptoms, hoping that, if I relieved the inflamed condition of the os and cervix, and attended to the general health, she would soon improve; and, being unmarried, I was unwilling to subject her to any local treatment beyond the application of leeches to the anus; these relieved her only for a while, and I soon found that I was making but little progress. The condition of the os uteri was, therefore, examined more accurately, and, being ascertained to be congested and granular, it was touched with nitrate of silver. The tongue and state of the bowels indicated also so much irritation of the intestinal mucous membrane that I was unwilling to give mercury, although the liver was inactive, and hoped to relieve the one and rouse the other by the combination of lime-water and taraxacum. I know of few medicinal agents to equal these in such cases, for there can be little doubt that mercury frequently increases the irritable state of the mucous membrane, and, if carried far enough, will even pave the way to actual ulceration. The caustic produced considerable relief for a while; but at a subsequent examination the os uteri was found so congested as to require scarification, which produced a free discharge of blood, and was followed by a greater degree of relief than she had yet experienced; still, however, the state of the tongue was far from satisfactory, and after a time her former pains returned. The scarification was repeated twice more, and with great relief; the general health improved, the catamenial periods became more healthy; still, however, some symptoms (lancinating pains, for instance) continued unremoved, even when the effects of the treatment were most successful; and feeling that I could only bring her up to a certain degree of health, and with difficulty keep her there, and having on many occasions found that I could stop the inflammatory action, which so frequently accompanies these cases of contracted os and cervix uteri in irritable habits, by temporary dilatation, I passed a smooth metallic tent into the canal of the cervix; the introduction was attended with considerable pain; but this abated quickly, and she then felt a more complete and lasting relief than she had hitherto experienced. The general health improved, the catamenia came without the usual precursory suffering, and I felt convinced that in removing the contracted state of the os and cervix uteri I had removed one, if not *the* great, cause of irritation upon which her symptoms depended. Still the disposition to inflammatory action in these parts was evidently not entirely subdued; the former symptoms began gradually to return, the health to suffer, and in the course of two months the os uteri was found as contracted as at first. A metallic tent was again introduced, and this, as on the former occasion, was attended with the same general relief and improvement of health. After wearing it ten weeks it was removed, and she continued to enjoy good health for four months, although it was but too evident that some of her old symptoms were beginning to return; in about a month more they had rapidly increased, and, feeling more than ever convinced from this second trial that permanent dilatation would be the only chance of permanent cure, I determined to divide the anterior wall of the cervix. It might have been more prudent to have waited a little longer to see the results, but, as I propose to lay before your readers some similar cases of much longer standing in my next report, I have detailed this one first, as it appeared best fitted for illustrating my subject.

THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

By GEORGE CORFE (Author of "A Popular Treatise on the Kidney," &c.), of the Middlesex Hospital.

(Continued from page 255.)

ALPHABET OF AUSCULTATION.

Two Dry Sounds.—Rhonchus; Sibilus.

Two Moist Sounds.—Small Crepitation; Large Crepitation.

Three Vocal Sounds. — Bronchophony; Œgophony; Pectoriloquy.

Thus:—

Two Dry Sounds.

Rhonchus.—Rhonchus, or snoring, heard in the larger bronchi, is produced by an intumescence or œdema of the mucous membrane of the bronchi, on which phlegm impinges. This sound occurs especially at the bifurcation of the bronchi, where the membrane is bevelled off, and is called by the French physiologists the "eperons," or spurs of the bronchi. When the fingers are spread out, the reflected skin from the base of one finger to that of the other, represents a magnified form of this reflection of the bronchial mucous membrane. The sound denotes the existence of bronchitis. The pathological change above described is well exhibited, in other respects, in conjunctivitis, when effusion exists beneath this membrane.

Sibilus.—Sibilus; wheezing, whistling, or cooing. Produced by the same cause as above described, with the exception that it originates in the smaller bronchi, so that the grave sounds of a bassoon, and the shrill sounds of a picolo, or the air drawn through the semi-closed lips well moistened with saliva, and through the larynx as in snoring, afford a tolerably accurate representation of these two bronchial sounds.

Two Moist Sounds.

Small Crepitation.—Small crepitation is the invariable symptom of the first stage of pneumonia, and is produced by the inspired columns of air passing through a series of inflamed pulmonary cells, which are partially clogged with sero-sanguinolent secretion. The act of rubbing the hair between the fingers gives some notion of this important diagnostic symptom. I need scarcely say that emphysema from fractured ribs and wounded lung will cause this sound also; but, as I do not wish to confuse the student by describing those morbid changes produced by traumatic causes, I shall omit any further notice of them now.

Large Crepitation is similar to the breaking of large soap bubbles, and is heard over the lower lobes behind, in cases of advanced or chronic bronchitis, the third stage of pneumonia, and in emphysema with œdema pulmonum.

Three Vocal Sounds.

Bronchophony, or increased resonance of the voice, is produced by a solid portion of lung acting as a better conductor of sounds than a vesicular or healthy portion; so that the voice of the patient rings under the ear of the auscultator. This solidification is either the result of pneumonia, or of a mass of aggregated tubercles in the upper lobes. In the latter case it is heard under the clavicles; in the former it is usually detected over the lower lobes behind.

Œgophony, or bleating of the goat. A sound peculiar only to the presence of a small portion of effused lymph between the surfaces of the costal and pulmonary pleura, the result of

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pleuritis. It is not heard when the effusion is copious, but it is again heard when the effusion is in the course of absorption. Hence it is an unfavourable auscultatory sign in the early, and a good one in the latter, stages of pleuritis. This sound should be listened for over the lower lobes behind; the ordinary seat of the early occurrence of pleuritis.(a)

Pectoriloquy is the effect of the intonation of the voice passing up the stethoscope as though it came from within the chest rather than from the mouth of the patient. Its production is the unequivocal evidence of a cavity in the substance of the lung, which cavity is usually in the upper lobes, and therefore this vocal sound is to be sought for under the clavicles. If you place the stethoscope over the wings of the thyroid cartilage, and make the person talk, you have a fair specimen of this vocal sound in the above diseased change.

Having said thus much upon the subject of using one of the special senses for the detection of diseases of the chest, and which more properly claims the title of auscultation, I now proceed to consider that information which the eye derives from beholding a series of changes which are no less useful than are those which we obtain from the sense of hearing; and they are equally as symptomatic of thoracic disease, and should be ranked amongst the semeiotics of this department of medical study, in the same way as the auscultation of the air, voice, sounds of the heart, &c. &c,

In the first place, then, we have to notice the varied forms of disease in these viscera, ordinarily met with in the medical wards of an hospital. Thus, pneumonia, pleuro-pneumonia, tubercular deposition or phthisis, emphysema pulmonum and asthma, bronchitis, œdema pulmonum or dropsy of the lung, pleuritis and empyema; hydrothorax, or dropsy of the pleura, in one or in both sides; endo-carditis and valvular diseases, in their more advanced condition; dilatation of the cavities of the heart, with thinning of its walls; the same change with hypertrophy of its walls; contraction of the cavities without hypertrophy, and the same contraction with thickening of the walls.

In proceeding to make a hasty sketch of these diseases, it is not my intention to confine my remarks to the various complaints as they stand formally in the several divisions of this classification, but to pass from one to the other in the course of my observations, in order to compare the various shades of peculiarity which the symptoms appropriate to each one of them exhibit: so that, in the glance I am now about to take, some diseases, such as emphysema, which stands in the third division, will be touched upon in treating of those diseases which are grouped in the second division of this class; nevertheless, a more explicit description of each one of these thoracic changes will be made when the diseases in each division are treated of. This mode of proceeding is the more practical and useful one, inasmuch as the main point to which I am anxious to draw attention to in this, as in all the other classifications of diseases according to their physiognomy, is the importance of exercising and tutoring the eye, the ear, the sense of touch, and the hand, in the determination of diseases, whether they exist in the cranium, thorax, or abdomen.

In the first place, then, let us suppose that a patient presents himself with a heavy eye, knitted brows, a dusky, dirty-looking, inexpressive countenance, not livid, but similar to a man who is fagged out with a night's debauch of drinking and loss of sleep, and who has a greasy face that looks as if it had experienced no ablution for forty-eight hours. Perhaps the lips are covered with "herpes labialis" (a frequent occurrence in the early stages of the disease I am endeavouring to paint—at least so it is in London). His breathing is wholly abdominal; you hear him give a short, dry, sharp, and bounding cough. The pulse is hard and full, the skin is hot, and the man's looks are confused. Before you put the ear to the chest, you might venture to say, "This is pneumonia."

But, as has been just remarked, we first glance at the countenance, and especially at that wonderful organ, the index of the mind—the eye. It is dull and heavy, the overhanging brows are knitted, the face reveals to the mind of the practitioner that the man is muddled. He looks stupid; there is a dusky flush over his cheeks, and the lips, especially in children, are of a dead rosy tint. The whole countenance is inanimate and expressionless, and you may read in it, oftentimes, "Imperfect oxygenization of blood."

Another patient drags forward for admission, presenting a thin face, high cheekbones, a glassy eye, dilated pupils, curved and convex nails (ungues adunci); a hacking, irritable, short cough; a raucous voice, a prominent pomum adami, and you read "phthisis" in his physiognomy.

Whilst a third, in the person of a tall, athletic Irish labourer, walks up, with a heaving chest, livid lips, a purplish, dusky countenance, raised brows, open eyes, alæ nasi acting, shoulders elevated and thrown forward, a barrelled chest, and a short, loud, deep, sonorous, and straining cough; add to these physical appearances the hints to be thrown out under the head of "Emphysema" and "Bronchitis," and you, as it were, read this disease in the man's face and deportment.

In pleuritis, on the other hand, there is a countenance lighted up with marked expressions of acute suffering; the eye is rather wild, and is carried hither and thither with anxiety and distress in its every motion; when, in an instant, perhaps, whilst the patient is giving a vivid description of his ailment, he is suddenly thrown forward or sideways by an involuntary jerk or catch in his breathing, and his respiration for a moment is suspended. You see how acute his sufferings are by the shock such a suspension of his breath produces. Unlike a pneumonic patient, he is very ready to talk and give you a graphic description of his illness and pains; the efforts of expiration in talking do not disturb him, as the lungs are now receding from the inflamed surface; but when he has exhausted all the air he inspired, and the lungs are collapsed, he involuntarily takes a deeper inspiration than he was wont to do, and the inflamed pleura is stretched; sharp pain is experienced, and he is ready to drop with its severity, and with the momentary sense of suffocation.

The action of respiration will be so far modified or altered in each of the foregoing diseases of the thoracic viscera that a well-practiced eye can oftentimes, at one glance, conjecture which organ is the seat of special disease.

In pneumonia and pleuro-pneumonia (the chest and abdomen being laid bare in the male subject) the front of the thorax, from the clavicles to the eighth or ninth rib, is quite passive in the act of respiration; the small or floating ribs, with the diaphragm, act to a certain extent only; whilst the abdominal muscles take the most active part in the office of respiration.

This is called, and rightly so, "abdominal respiration," and invariably denotes acute thoracic disease, and nearly always points to the pleura, or pleura and lung, as the immediate seat of inflammation.

In pleuritis this state of abdominal respiration is more especially marked, and is recognised immediately by a mere novice, when not pointed out to him. The intercostal muscles are immoveably fixed in the acts of respiration; and, if there is any amount of effusion into the pleura on one side, some dilatation of that half may be noticed, as we pass our eye down the chest, outside the mamma, and compare it in our mind with its corresponding surface on the opposite: nay, more than this may be observed on viewing the two sides of the thorax. On the side in which inflammatory action is going on, you may notice the passive state of the lower ribs, whilst the upper four or six act to a moderate amount. The intercostal muscles have the power, most undoubtedly, of acting in certain parts of the thorax, whilst they are quite passive in other portions: so that the whole of one side will act freely and perfectly, a greater portion of the other side will moderately rise, whilst the lower half, where pleuritis exists, will be as fixed and immoveable in the acts of respiration as the spine itself. I have seen this repeatedly, in the medical and surgical wards of the hospital, in fractured ribs with pleuritis, as also in the acute stage of this disease when idiopathic in its origin.

The eye may readily discern the presence of empyema, when this organ has been somewhat experienced in its search after thoracic diseases, especially when the effused fluid in this cavity amounts to any considerable quantity: for in addition to the marked "abdominal respiration," already noticed under the head of "Pneumonia," and the passive state of the respiratory muscles of the lower half of the chest, you will find the non-inflamed side of the chest acting much more freely than the inflamed side, and there will be, perhaps, ever and anon "a jerk" or sudden "halt" of the intercostal muscles over the inflamed pleura, whilst you survey the chest of the patient as he lies in bed.

Again, if, as I have already said, there is much fluid effused in the inflamed pleura, there will be a manifest bulging of the affected side: so that, before the auscultatory talents of the pupil are called into action, the eye has pretty well satisfied the mind of the main features of the patient's disease.

In tubercular deposition (which is invariably met with in the upper lobes, and especially when that deposition has gone to such an extent as to cause inflammation of the pulmonary pleura) there is more or less adhesion of this latter membrane to the costal pleura; therefore, when these changes have taken place (and we rarely get the disease in an earlier form, except it be from a sudden outbreak of softened tubercles, producing hæmoptysis), the condition of the respiratory action is most marked, and is quite opposed to the former one, just alluded to.

In solidification of the upper lobes of the lung from tubercles, the following points are readily noticed by one who is accustomed to examine carefully the bare chest and abdomen of such patients in bed; nay, even in the erect posture, with only the chest exposed, as in our out-patient department. This state of respiration is so manifest and so decided, that a practised eye could speak positively of the stethoscopic sounds he should hear before he examines his patient through the medium of another organ of sense, that of the ear.

We may notice then, first, the freedom of action in the lower half of the thorax—all parts, in fact, below each mamma; the free expansion of the diaphragm and the abdominal muscles; but, as the eye travels up to the clavicles, we invariably find them passive, or so imperfectly acting, or raised to so trifling a height, that I have often taken a very young pupil, and have asked him to decide the question, which part of the chest exhibited the most freedom in the respiratory action, and the answer has been as ready as it was accurate.

The upper part of one side of the thorax in phthisis, generally speaking, acts in a less degree than the corresponding half, as the disease never progresses in an equal degree through the upper lobes of both lungs. There is a flaccidity as well as a flatness of the muscular front of this part, and, if a tubercular excavation has formed, the pleura (costal and pulmonary) will be adherent, and a depression over the second or third rib may be noticed corresponding to that portion of adherent lung which contains the cavity. This condition of respiration one may term "respiration by the lower ribs." If the patient is erect, and is desired to take a few deep inspirations, the passive state of the shoulders,

(a) If a bladder, half full of thin gruel, is placed over the naked chest of a healthy man, and the ear is laid on the bladder whilst the person is made to talk, the œgophonic voice may be heard.

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clavicles, and upper ribs is more manifest than when he is in the recumbent posture.

I do not know whether the following curious fact has ever been published, though it may have been noticed by others besides mysef. It is this: In tapping the intercostal spaces of these passive upper ribs of a phthisical patient with a sharp finger nail, there follows a curious vermicular motion of the fibres of these muscles, and the same effect is not produced in the same spaces between the lower ribs. I am not sure that the exact truth is embraced when I say that this curious wriggle of the muscle, on being so tapped, is not met with in any other disease but in that of phthisis; but, whether such is the fact or not, I believe I can assert that it is rarely, if ever, present in any other form of thoracic disease, and that it is seldom absent in this. The explanation seems simple enough: the subcutaneous adipose cushion is nearly absorbed, the intercostal muscles are much exposed, and, feeling the shock, they recoil under it. I am not, however, prepared to assert that it will not be found in emaciated persons who labour under any other attenuating disease than that of phthisis.

Many of the diseases of the chest are so painless in their nature, so rapid in their course, and so destructive in their issue, that the mere exercise of the senses of sight and of feeling is altogether futile in the detection of these formidable morbid changes. The employment of auscultation and heautophonics is alone capable of detecting the seat and the nature of these fatal diseases.

(To be continued).

REMOVAL OF A LARGE TUMOUR FROM THE NECK.

By H. HAYNES WALTON, Esq.,
Surgeon to the Central London Ophthalmic Hospital, to the St. Pancras Royal General Dispensary, &c. &c.

A part of the following case has been related at the Pathological Society, where the morbid product was presented. At the request of many of my friends, I now publish a full account of it, together with the result, and some remarks.

The patient was a female, aged thirty-three, the mother of three children, of nervous temperament, with general health tolerably good.

The tumour was on the right side of the neck, lying directly under the horizontal portion of the jaw, extending from within half an inch of its symphysis to its angle, and passing backwards and downwards to within an inch of the clavicle. It seemed to consist of three lobes, was nearly spherical, with a well-defined outline, and stood out three inches beyond the natural contour of the neck. It was moveable on the subjacent parts, and was not adherent to the skin. There was no disturbance of the local circulation.

History.—Twelve years ago she perceived just under the centre of the jaw a little lump, which increased but slowly till within the last year, when it has rather rapidly progressed in growth. It was always devoid of pain, and had never caused any inconvenience until lately, deglutition being now slightly interrupted, especially when fluids are swallowed. About three years since she vomited a large quantity of blood; this was clearly ascertained (as the physician under whose care she was informed me) to have come from the stomach, and was attributed to a blow she received over that viscus.

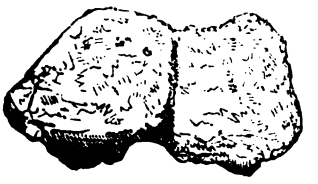
As far as could be ascertained, she had not any organic disease.

After careful examination, I determined to operate. The patient was very anxious, and dreaded a fatal termination as the probable result. This was in consequence of her having applied to two surgeons, the one of whom had advised her to let it alone; the other intended to operate, and had made all necessary arrangements, but ultimately declined.

On the 2nd of December, assisted by my friend, Mr. Storks, I removed the mass by making two incisions, one a little under parallel to the jaw, and extending at each end slightly beyond the tumour; another at a right angle to that, and carried nearly to the clavicle, and dissecting back the flaps.

There was no peculiarity about the operation worth recording. The tumour was immediately beneath a well-developed platysma, and surrounded by a dense cellular sheath. No part of it passed between any of the muscles of the neck, or of those going from the hyoid bone to the lower jaw, or to the tongue. I did not suspect an occurrence of the latter nature, since the cavity of the mouth was not encroached on; but I thought it probable that I should find an elongation of it between the styloid muscles and the pharynx.

There was little blood lost. The external jugular vein was, from its situation, necessarily wounded, and two ligatures were applied to it. Two small arteries were tied. The integuments were retained *in situ* by suture needles, and water-dressing applied.



The operation was performed under the influence of chloroform, which was given by my friend Mr. Greenhalgh. The patient, naturally irritable, would doubtless have given much trouble, and rendered the operation protracted, had she not been insensible. Again, in operations about the neck where venus hemorrhage is influenced by preternatural action of the respiratory muscles, insensibility of the patient, whereby tranquil respiration is produced, is a great desideratum.

At seven P.M. I was called, in consequence of the nurse being alarmed by bleeding from the wound. When I arrived I rather feared that I should have to remove some or all of the needles, and search for the bleeding vessels; but, as the escape of blood was not copious, I determined first to try the local application of cold by means of thin pieces of rag, dipped out of very cold water, and renewed every three or four minutes. The plan was effectual; in two hours all bleeding had ceased.

℞. Tinct. hyoscyam., ʒj.; spr. ammon. aromat. ʒss.; aquæ, ℥ij.; M. ft. haust. to be taken at bedtime.

Dec. 3. Passed but an indifferent night; circulation tranquil; bowels regular. The parts about the wound are quite tranquil; there is no inflammation, and but the slightest swelling; union is proceeding nicely.

℞. Morphiæ acet., gr. ss.; acid. acet., *m.* v.; aquæ, ʒj. M. ft. haust., at bedtime.

4. Continues to progress favourably. At eight P.M. all the needles are removed, except where the ligatures pass out, every part is united.

9. She is moving about in her room.

17. Three of the ligatures are removed to-day.

19. The remaining ligature came away to-day.

29. *Present Condition.*—There is a little wrinkling and looseness of the skin on the side of the neck. She can move the head about in all directions without any inconvenience. There exists a partial paralysis of some of the muscles of the inferior labial group, only observable when certain words are pronounced, or when an attempt is made to place the lips in the position necessary for whistling. In a state of quietude the mouth is quite symmetrical; indeed, so slight is the occasional variation from a natural condition, that it has not been noticed by those to whom it has not been pointed out.

Examination of the Tumour.—A section of it displayed a semi-transparent jelly-like-looking substance, arranged in cells formed by fibrous tissue. It was supposed, by some who inspected it with the naked eye, to be a specimen of the gelatiniform variety of cancer.

For a microscopic examination I am indebted to Dr. Johnson, of King's College. He says—"That it appears composed chiefly of soft yellow fibres, interspersed with which are some elongated cells, which are probably in process of development into fibres." He also adds, "I believe it to be very difficult, in many cases, to form an opinion as to the malignant or non-malignant nature of a tumour from microscopical examinations of the growth; but in the present instance I am of opinion that the tumour is of a simple non-malignant nature."

My own impression of the tumour before its removal was, that it had its origin in a lymphatic gland in which cysts had been developed. A few of my friends suspected it to be of a fibrous nature—a character common to tumours in this situation.

It may not, perhaps, be out of place to say a few words about the propriety of removing tumours from the neck. Unquestionably, a great nicety of discrimination is often required in these cases. I shall not enter into the diagnosis between aneurisms and other morbid productions, because I think I should be exceeding the proper scope of my communication. I will, however, mention, as an illustration of the difficulty of discrimination that sometimes exists, that, within the last few months, a distinguished surgeon in Edinburgh tied the common carotid for what he supposed to be an aneurism, but which afterwards proved to be nothing of the sort, but a tumour consisting of a cyst of tough consistency, containing a gruel-like fluid. (See the last number of "The Edinburgh Monthly Journal of Medical Science.") In the course of the present year, my opinion was asked by a most intelligent practitioner on a case that was considered to be a small aneurism of the external carotid. After a careful examination, I was satisfied that there was no aneurism, but a tumour, probably an enlarged lymphatic gland, over the artery.

Attention should be specially directed to their attachment to the neighbouring parts. On this point, says my friend Mr. Fergusson, "The mobility of such growths I consider the most valuable criterion of all; and, if it were evident that the part slid freely over the subjacent textures, I should not hesitate about using the knife, whatever might be the bulk of the disease, provided there was no other circumstance to contraindicate such a proceeding; but if, on the other hand, the tumour seemed fixed to the neighbouring parts—if its limits were not clearly defined, if an

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attempt to move it caused pain—I should not readily be induced to use the knife, however small the mass might be."

It is also essential to ascertian that they are not intimately attached to large vessels or to nerves. In the case under consideration I had some difficulty in assuring myself that the carotid artery did not pass through the tumour. To those interested in this subject I would refer to a well-written report of a case by my friend Mr. Smith. It will be found in the *Medical Gazette* of Dec. 9, 1847.

It is a fact worth knowing that danger is avoided, and the dissection rendered easier, by seizing the tumour as soon as a portion of the skin is reflected, making tense its cellular connection, and keeping the edge of the knife well directed on it while dividing those connections.

As a general rule, whenever secondary hemorrhage ensues from a closed wound, the wound should be opened and the bleeding vessel searched for and secured, or the bleeding stopped by some other means. I am speaking with reference to secondary hemorrhage arresting union by the first intention. When, from such bleeding, clots are found in a wound and allowed to remain, reparation can scarcely be effected but by granulation on the "modelling process," as it is called by Macartney. I was well satisfied when I examined my patient that there were no clots under the flaps; had there been any I should most undoubtedly have opened the wound and removed them, and given a proper chance to union by the first intention. The blood passed away as soon as it was poured out; probably it came from a part near to the external opening.

It seemed impossible for any cut surface to have united more kindly or quickly than was the case in this instance. I tried hard to avoid cutting any nerves of consequence, by dissecting as far as was practicable parallel to the direction in which they run. With all my care the sequel shows that some of the fibres of the portio dura were divided.

The impaired deglutition before referred to has quite disappeared, and also a cough with which she had been troubled for many months. It will of course be interesting to know of the condition of the patient some years to come, and I shall not lose an opportunity of making inquiries.

13, Bernard-street, Russell-square, Jan. 3.

APPLICATION OF CHLOROFORM IN TYPHUS FEVER.

Communicated by Dr. FAIRBROTHER.

An interesting case of the successful application of chloroform has just occurred in the Bristol General Hospital. The patient, a female about eighteen years of age, exhibited all the symptoms of a bad case of typhus fever. The usual remedies were tried for a fortnight, without any beneficial effect; the unfavourable symptoms continuing, the patient being delirious, and the system worn out for want of sleep—in fact, her life was despaired of—it occurred to the physician under whose care the patient was placed, Dr. Fairbrother, that chloroform being used in operations to produce a sedative effect, if the patient could be kept in the same state continuously, it would reduce the too rapid circulation of the blood through the lungs, relieve the difficulty of breathing, and thus become efficacious in subduing the excited state of the brain and system in such cases, or in others of an inflammatory nature. He accordingly tried the experiment, commencing with ten minims, administered in a cup-shaped sponge, enclosing the mouth and nostrils, but occasionally admitting atmospheric air. About ten minutes were occupied in the inhalation. The soporific state was induced in a few seconds, and continued for about half an hour.

In about four hours the chloroform was again administered, the quantity being somewhat increased, and the inhalation was now continued for half an hour. The patient slept from this time (twelve) till four. She took a little porter, and again slept till eight o'clock. The application was then repeated, and has been continued for several days, the quantity of chloroform being gradually increased to twenty-five minims, and the time of inhalation to forty minutes, guided in these particulars by the state of the pulse.

No other medical treatment has been adopted, the only other means used being the sponging of the body with tepid water and applying cold pads to the head, the system being supported by beef-tea, porter, wine, &c., and, to allay thirst, toast and water. The patient is now recovering. The pulse is reduced from 130 to between 70 and 80; the tongue is clean and moist; the skin cool; diarrhœa has ceased; the appetite is returned; and the countenance is regaining its natural aspect.

It is a recommendation of this remedy that, so far from its being disagreeable, the patient, after it has been administered a few times, craves for it.

CHLOROFORM IN AMPUTATIONS.

Communicated by J. CLARKE, Esq., Lynton.

On Wednesday evening last, the 29th day of December, being one of the most tempestuous nights of weather I almost ever had to encounter over part of the Porlock hills, I was summoned to visit an old man, a pauper, eighty-seven years of age, being nearly seven miles distant from my own house, who was reported by the messenger to have broken his leg, though the individual who came for me could give no further information in any respect. On my arrival at a lonely cot I found the old man in bed. On putting aside the clothes, I observed the leg encompassed with several handkerchiefs and cloths, deeply saturated with blood; on removing which, as well as a thick woollen stocking, one of the worst compound fractures, extending through the ankle-joint, presented itself, several loose pieces of bone protruding in different places. Seeing no chance of saving the limb, or even the patient's life, but by its removal, I sent to Barnstaple for the assistance of Mr. Torr (the poor-law commissioners not allowing any operation to be performed without the aid and consent of a member of one of the colleges), a distance of twenty miles, who arrived on Friday; and, after seeing the patient, and examining the parts, we at once determined, as the only course we could adopt, to amputate below the knee. Being provided with some chloroform, which Mr. Torr brought with him, having received it from London through Mr. Cotton only the night before, we commenced the inhaling from a pocket-handkerchief, with an enclosed piece of sponge, as recommended by Dr. Simpson. In seven minutes the twitching of the body and limbs took place; he almost immediately fell into a state of stupor, in which he was removed from his bed into the adjoining room, placed on a table, the limb removed, and the stump dressed; having once or twice reapplied the handkerchief, he was carried back again to his bed without one single symptom of pain or feeling; indeed, as soon as he was in bed he commenced singing part of a favourite song, after which a little talking took place; he then fell into an apparent sound sleep, in which state we left him. On visiting him the next day, Saturday, I found he had passed a quiet night, and slept well; had felt no pain, and appeared cheerful and comfortable. At nine p.m. he complained of a little pain, and never spoke after. He died the following Sunday morning about ten o'clock.

We never entertained any hopes of the man's recovery, from the nature of the accident, &c., which happened from an immense stone falling on his leg, and no one near the spot to extricate him for nearly two hours). The loss of blood must have been very great, the bloodvessels being ruptured; and we found almost complete ossification, not only of the tibial and peroneal arteries, but also the branches. This, coupled with his great age, will easily account for the fatal termination.

As this is the first case in which the chloroform has been tried, as far as I am aware of, in this part of the country, the success it met with in the above case will most assuredly require no further comment from me. I hope no needless operations will ever be had recourse to merely to exhibit its wonderful and powerful effects; and I trust all those who may hereafter offer it for sale will be very cautious to restrict it to the medical profession.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meeting of Jan. 10; M. BRONGNIART in the Chair.

CHLOROFORM.—M. Sédillot forwarded another paper on the effects of this substance. They are, says M. Sédillot, very variable apparently, but in reality submitted to rules of some precision. When the insensibility has been slow in its production it disappears rapidly, and, on the contrary, when unconsciousness is rapidly produced, it is not so readily dispelled. The advantages possessed by chloroform over ether are, according to M. Sédillot, compensated by dangers which should be pointed out to the profession. Thus, when, for instance, anæsthesia has been produced by ether, if the inhalation be suspended, insensibility may continue for some time, but does not become more complete; on the contrary, with chloroform, the pallor, smallness of the pulse, weakness of respiration, and coldness of the skin sometimes increase, after the inhaler has been removed, in an alarming manner. Twice M. Sédillot seriously feared the consequences of this incessant annihilation of the vital functions. Therefore, the professor of Strasbourg thinks it advisable that the surgeon be not guided, as in the administration of the vapour of ether, by the state of the respiration, but that he should suspend the inhalation of chloroform when muscular relaxation has taken place.

COMPOSITION OF THE BLOOD.

M. Millon read a paper on a new mode of analysis of the blood, by which metals are detected in it with great facility. This method consists in receiving the blood, after venesection, in three times its volume of water, and then introducing it into a phial containing chlorine in a gaseous state. The blood coagulates, acquires a brownish colour, and soon forms an amorphous, greyish, and pultaceous mass, which, being thrown upon a filtering paper, exudes a transparent fluid. This method permits the chemist to ascertain constantly in human blood the presence of silicic acid, of manganese, lead, and copper. M. Millon endeavoured further to ascertain if the lead and copper were disseminated in the blood, or if, like iron, these metals were assembled exclusively in the globules. One kilogramme of coagulum yielded 0·083 of lead and copper; one kilogramme of serum separated from that coagulum contained only 0·003 of both metals. These three milligrammes of lead and copper found in the serum were attributed entirely to the few globules dissolved or suspended in the lymph.

Copper and lead are not, therefore, diffused in the blood, but are, with iron, fixed in the globules; as to their influence upon health, and the diseases perhaps produced by the increase or diminution of their proportions, these are questions which remain unanswered, and which must find their solution in further experiments.

ACADEMY OF MEDICINE.

Meeting of Jan. 11; M. ROYER-COLLARD in the Chair.

LOCALIZATION OF SPEECH IN THE ANTERIOR LOBES OF THE BRAIN.—A MEMOIR, BY DR. BALHOMME.

A report upon this memoir was read by M. Ferrus; the paper itself did not contain any conclusions on the subject.

M. Baillarger remarked that in general the

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cases of general paralysis presented symptoms favourable to the doctrine of Professor Bouillaud, who considered that the function allotted to the anterior cerebral lobes was that of language. It was, however, necessary to distinguish these cases into two classes—viz., those in which the progress of disease of the brain had been acute, and those in which it had been chronic. Some of the latter gave rise to an objection not hitherto taken into account; a patient, for instance, was affected with hemiplegia, in consequence of cerebral hemorrhage. After one or more months motion gradually returned in the paralysed extremities, when suddenly memory ceased, the excretion of urine and fecal matter became involuntary, and general paralysis took place. Here a general alteration of the brain, often so slight as to be scarcely appreciable on dissection, had complicated a local lesion. If the patient had presented great embarrassment in his utterance, it was necessary to analyse the case most carefully, in order to ascertain to which of the two lésions of the brain it was due. Now, general paralysis was usually attended with more or less difficulty of utterance, and therefore a local alteration of the posterior cerebral lobes might be attended with loss of speech, if the disease had terminated by general paralysis, without the case proving anything against M. Bouillaud's theory. Also, amongst the cases brought forward in support of this gentleman's opinion, there were some which, for the same reason, should be set aside.

M. Rochoux said that all uncertainty would cease if facts were properly interpreted; for instance, a woman was affected with apoplexy, and lost the faculty of speech. During the last hours of life a loquacious delirium took place. On *post-mortem* examination, hemorrhage was found to have occurred in the anterior lobes of the brain. Even if the case was a solitary one, it would be sufficient for M. Rochoux to assert that the anterior lobes of the brain were not the seat of the faculty of language. If M. Rochoux was shown a single individual who could see without eyes, he would also assert that the eyes were not the organs of vision.

M. Ferrus said that in all double organs the preservation of one was sufficient to account for the continuance of the function. If M. Rochoux could bring forward a single case of disease of both the anterior lobes, in which the faculty of language was not impaired, he would render to science a signal service. But, if one lobe only was affected, the other remaining healthy was perfectly sufficient for the accomplishment of the function.

A report was then read by M. Girardin, on a paper by Dr. Toulmonde, relative to the sanitary condition of the men employed in cloth manufactories. The paper not containing any facts with which our readers are unacquainted, it is unnecessary to enter into any detail on the subject.

Fistula Lachrymalis caused by Syphilis.—For the January number of the "Journal des Connaissances Médico-Chirurgicales," Dr. Tavignot sketches a rapid history of this form of fistula: it is the tertiary form of syphilis, which occasions the disease of the lachrymal sac; the ascending branch of the superior maxillary having been invaded by osteitis or periostitis. The diagnosis reposes upon three orders of signs:—1. The succession of previous symptoms, the appreciation of which is not always an easy matter, particularly if mercury, having been exhibited, has interfered with the regular succession of morbid manifestations; the recollections of the patient, and the various stains which the disease may have left upon the body, will, however, in most cases, powerfully assist the diagnosis. 2. The local symptoms of the fistula; and, 3. The concomitant syphilitic manifestations. When the latter are present, the task of the surgeon is greatly simplified; but in some cases it is not so, and, the fistula lachrymalis being the only symptom observable, it becomes necessary to examine if, under the influence of syphilis, it may not present some characteristic local appearances. In simple fistula, when the contents of the sac have been removed, the bony structure of the diseased region is found in a state of perfect regularity—a fact which is easily ascertained by comparison with the healthy side. When syphilis has produced the deformity, on the contrary, in most cases a hard swelling may be felt on the side of the nose, in the region corresponding to the nasal duct. The os unguis, the nasal bones, or the angular prominence of the os frontis, may also be affected with osteitis, and betray the nature of the case by their tumefaction. Often, in these cases, the superior maxillary being also diseased, the incisor teeth are moveable not *in* their alveoli, but *with* them, showing that a portion of the bone is loosened. The treatment recommended is, in the first place, that which experience has proved to be most efficient in tertiary syphilis, namely, hydriodate of potass, in doses of from ten grains to 3j. daily. When the swelling of the bones has subsided, if the symptoms of fistula lachrymalis have not disappeared, the usual treatment of this affection should be resorted to, the specific character of the malady having been removed, but its consequences still persisting.

Inhalation of Ammonia is used by M. Bouchardat, for the purpose of removing rapidly the effects of intoxication, in the drunkards who are so frequently brought to the Hôtel Dieu, particularly on Sundays, in a state of insensibility.

D. M'Carthy, D.M.P.

Prurigo Senilis.—Dr. Bellingham, of Dublin, remarks that constitutional remedies appear to have but little effect on this disease, and that the principal reliance in its treatment must be upon local measures. The application found most useful, both in relieving the intolerable itching and in curing the disease, is creasote either in the form of ointment or lotion, usually the former. The ointment may be made with from ten to twenty drops of creasote to an ounce of lard; the lotion with from twenty to thirty drops of creasote to half a pint of water, a little spirit of wine or acetic acid being added to render it more soluble. The ointment, to be useful, should be well rubbed into the parts every night, and a very few applications will, in general, relieve the itching, prevent the development of fresh papulæ, while the old ones will gradually desquamate. If the application of the ointment is premised by the warm bath, and if the patient attends to personal cleanliness, the remedy will be more likely to prove quickly successful.

Singular Case in Midwifery.—Dr. Oldham, of Guy's Hospital, in the "Reports," states the case of a woman, forty-one years of age, who had had several children, and many miscarriages, and who was again become pregnant, and at her full time, in June, 1845. On the 26th she had flooding to the amount of a quart, without much pain, and the os uteri was closed. On the 30th she complained of diffused tenderness over the abdomen; the uterus was then found properly developed, and the cervix short; the os admitted the finger, and the head, covered by the membranes, could be felt through them. The mammæ had now become swollen and hard, and had all the appearance of those glands on the third day after parturition, and milk could be freely pressed from them. From the history of the case, it was thought that there was extra-uterine conception, which the last-mentioned symptoms tended to confirm; but, on a careful examination of the abdomen, the uterus seemed not only gravid, but normally developed. By auscultation neither the fœtal heart, uterine sound, nor active fœtal movement, could be detected, and the death of the fœtus was hence inferred. It was determined to wait for the period when uterine action would be developed; the breasts were ordered to be drawn, and salines with calomel and Dover's powder were internally administered. On the 12th of July it was found that, during ten days, there had been fetid discharges, with occasional escapes of gas; the patient became weaker, and, on examination, the os was sufficiently dilated to admit two fingers, and the bones of the head of a decomposing fœtus could be felt. There had been no uterine action. A decoction of the ergot of rye, with sub-borate of soda, was now given, and occasional friction made over the abdomen in order to excite the womb to action; the efforts, however, were unsuccessful. An attempt was now made to artificially dilate the uterus, in order to excite action by pressure on the cervix, and to enlarge the orifice. The os, however, could not be further enlarged, and the tissue of the neck, when stretched, seemed to be lifeless and unyielding. Galvanism was then resorted to, and was applied for more than half an hour over the external surface of the abdomen, in an oblique and vertical direction; and other shocks were directed through the uterus, one of the conductors being placed within the vagina, on the cervix of the womb, and the other externally, near the umbilicus. These shocks were borne without complaint. A great deal of decomposing matter and gas were released from the womb by passing a small hook through the os and breaking up the brain, and injecting warm water frequently within the cavity. On July 17 a portion of the placenta was seized and detached in a loose and putrid state, with the umbilical cord. During this time a constant discharge of an olive-coloured fluid was going on, and the abdominal tumour was sensibly diminished. With this shrinking of the womb the cranial bones, which had always been felt at the os, seemed to be removed, and the fingers of one hand could be touched. They were caught with a pair of dressing forceps, and the arm was drawn into the vagina. This afforded a firm hold, and an effort was made by traction to dilate the os; this, however, was found to be impracticable. The arm was afterwards cut off. Subsequently, portions of the fœtus were carefully removed with dressing forceps; the bones loosened and easily detached; and in this way the ribs, the greater part of the spine, and some bones of the other arm were drawn through the mouth of the womb. The abdomen diminished in size, the discharge lost its fetor, and became puriform. During this time her powers were sustained by ammonia and bark, with small doses of opium. She took nourishment pretty well, and it was hoped that ultimately the whole of the fœtus would be removed, and the patient recover. Towards the end of September, however, she appeared emaciated and very feeble; the abdomen was tender, and she complained of severe pain in passing water. The size of the abdominal tumour was reduced to that of an orange, and it was noticed that it had become harder, more compact, more defined, and that it was to be felt close behind the abdominal parietes. She now began to sink rapidly; there was frequent vomiting; and she died on the 26th of September, three months from the time when labour should have come on. At the *post-mortem* examination the body was observed much emaciated; the small intestines were distended with flatus; and here and there were some delicate flakes of recently formed lymph, with a small quantity of serum. The abdominal viscera were generally healthy. On dividing the central line of the abdomen below the umbilicus, a cyst was opened, which contained a number of bones, closely set together, with a quantity of thick, dark-coloured putrilage. The cyst, which accurately covered the mass of bones, was formed in front by the lower part of the abdominal walls and the bladder; it was covered in above by the small intestines and omentum, which adhered slightly together; whilst the back part of the cyst was formed by the posterior wall of the cavity of the uterus. This organ was reduced, when measured behind, to about four inches in length. The body was bent back, and muffled by false membranes, and the os uteri was large enough to admit the fore finger. The whole anterior wall of the uterus was absent, leaving only the front lip of the cervix to complete the os, and thus it formed the outlet of the sac which contained the bones. The bladder was so thinned in one part as to be quite translucent, and all but perforated. The

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left ovary was healthy, but the appendages on the right side were so matted together as to prevent their being separated. The bones, which were those of a full-grown fœtus, were quite clear of soft parts, and formed a dense, compact oval body.

Chloroform in Midwifery.—Mr. J. Brown related to the Westminster Medical Society a case of protracted labour, in which, the pains having ceased and the os uteri being extremely rigid, he administered a drachm of ergot of rye without any effect. Having waited an hour, he made her inhale chloroform; pains almost immediately came on; the os uteri relaxed, and the labour was quickly terminated. He has always found chloroform produce expulsive efforts of the uterus.

Diagnostic Sign of Disorder of the Digestive Functions.—M. Beau, physician (Annexé) to the Hôtel Dieu, says this sign consists in a transverse furrow across the thumb-nails, resulting from the thinning of the substance of the nail, and indicating an interference with its formation. It may be occasionally wanting, but when it does exist, it is characteristic of a disease with the following phenomena:—Diminution of appetite, of strength, or of the ability to labour; at a later period, palpness, emaciation, palpitations; and all these with or without epigastric pain, but no intercostal neuralgia. By this it can be understood how, by knowing the rapidity of the growth of the nail, the date of the disorder may be approximatively obtained by measuring the distance which separates the furrow from the root of the nail. The general growth of the nail is at the rate of one millimètre (1-26th of an inch) in the course of a week. But this furrow is not confined to the thumb-nails, although it is more marked in them than elsewhere, for it has been noticed upon all the finger-nails, and especially on those of persons working in lead, whose nutrition is much impaired.

Menstrual Periods and Parturition.—M. Leray has arrived at the following conclusions in reference to the time of parturition:—1. The time of natural, as well as of premature, delivery is directly referrible to menstrual periods. 2. The return of these periods, throughout the course of pregnancy, is in relation to the date of the month corresponding to that of the day when the menses began, at their last occurrence, to appear, whatever may be the number of days reckoned in each month. 3. The premonitory signs of labour at full term, and of premature delivery, occur, in the greater number of women, on the day of the month pointed out, or during the seven following days. 4. Nevertheless, the commencement of the expulsive pains may date, in a normal manner, but much less frequently, from the fifteenth day of the tenth month. 5. Every delivery at full term, or premature, which is accomplished before the right period of the month, may be considered as being in advance. 6. Every accouchement which is effected after the seventh day of the same period may be considered as delayed. 7. The preoccurrence of labour is much less common than its delay, and most frequently they do not precede the due time more than five days. 8. Delays, on the other hand, have not such limitations. 9. Lastly, in either case, the causes of advance or delay are very appreciable, although there are cases which it is impossible to fix with certainty.

Aneurism of the Left Coronary Artery.—Dr. Peacock exhibited a specimen to the Pathological Society, removed from the body of a man who died in the Royal Free Hospital. It was ascertained that the man had been a butcher in Leadenhall-market, and, although always a spare person, used to boast of the weights he was capable of lifting. He had never had rheumatic fever; his habits were very intemperate. The illness of which he died was of about a month's duration, but he had suffered from transient rheumatic pains, cough, and difficulty of breathing, for some time previously. During the ten days he was in the hospital, he laboured under symptoms of bronchitis, was in a semicomatose state, and so extremely prostrated as to be almost incapable of being moved in bed. There was no material difficulty of breathing, or lividity of the face or extremities, and he constantly occupied the recumbent position. He had only a slight cough, and expectorated scanty mucopurulent sputa. The pulse was not much accelerated, but was extremely feeble and unequal both in force and frequency. There was no increased extent of dulness in the præcordial region, but the sounds of the heart were nearly inaudible, from the sonorous and mucous râles which accompanied the respiration. No suspicion of any cardiac disease was excited, notwithstanding that he was several times examined, till the day before his death, when he complained of pain in the præcordia; and a peculiar flapping sound accompanying the action of the heart, but distinct from the ordinary cardiac sounds, was loudly audible along the course of the sternum and towards its left side. On the following morning, several hours before his death, no other physical sign was detected than extreme feebleness of the two sounds of the heart. Death occurred somewhat suddenly with tracheal rattles. On examination, the brain, though somewhat small, was found free from disease, but the arachnoid membrane, covering the surface of the hemispheres, was thickened and opaque, and adhered in places to the pia mater; some fluid was contained in the ventricles, and a considerable quantity at the base; both lungs, but especially the right, were emphysematous in front, so as to overlap the pericardium; posteriorly they were engorged, and very sparingly crepitant; the bronchial tubes contained much secretion, and the mucous membrane was intensely congested, more particularly in the smaller tubes. The pericardium was distended with pale yellow-coloured sero-purulent fluid, and lymph of soft consistence covered the serous surfaces. On the auricles the exudation was of a peculiarly delicate lace-like character, but on the surface of the ventricles it was more continuous and laminated; the sub-serous cellular tissue was infiltrated with pus and serum, so as to form in places a diffluent pulp. At the outer part of the base of the left ventricle there existed a protuberance about the size of a pigeon's egg, covered externally by a soft layer of lymph, and beneath this by a white patch of older date. On incising the walls of the ventricle, so as to divide the centre of this swelling, it was found to be formed by an aneurism of the left coronary artery. This aneurism arose from the anterior branch of that vessel at a distance of thirteen French lines from its origin, and ten lines from its point of division into the anterior and left branches. It was nearly spherical in form, and had a diameter of eight and half French lines. The sac was partly embedded in the substance of the ventricle, and contained laminated coagula partly decolorized, and so intimately adherent to the lining membrane as to be inseparable from it. The portion of the artery between the sinus of Valsalva and the aneurism was somewhat dilated, and converted into a complete cylinder of bone, but was entirely pervious, so as to allow a probe to enter the centre of the sac which arose from its anterior surface. Distal to the aneurismal sac the artery was less extensively ossified, and a probe could be passed near to the aneurism, but was then arrested, apparently from the vessel being curved, by the pressure of the sac which overlapped it. The right coronary artery was somewhat large, and its coats in places ossified; the heart weighed 13 oz. avoir., and its substance was very soft; the right ventricle was covered by a slight deposit of fat; its cavity was large and the walls thicker than usual; the walls of the left ventricle were unusually thin, and its cavity was dilated more especially towards the apex, where there existed an adherent and partly decolorized clot. The mitral and aortic valves were slighly thickened and opaque; the aorta was of somewhat large capacity, and its coats thick; the lining membrane was dyed of a deep red colour, and displayed in places a thin membrane on its surface. Some atheromatous deposit existed throughout the course of the aorta, and especially around the origins of the coronary arteries. The liver was much enlarged, coarsely granular, and indurated; the spleen large, and studded with nodules of fibro-cartilaginous deposit on its convex surface; the kidneys were solid and engorged, but otherwise healthy.

Naphtha in Consumption.—Dr. Theophilus Thompson has arrived at the following conclusions in reference to the administration of this drug in phthisis:—In the third stage of consumption it did positive mischief. In a few cases, when the bronchial tubes were affected, and there was much expectoration, it seemed to arrest the secretion to some extent, lessen the night perspiration, make the pulse fuller and slower, and somewhat relieve the cough: the appetite also improved In all the stages of consumption, and under other circumstances in the disease, except those mentioned, the naphtha did positive harm. It had no effect whatever on the tubercular disease.

Nerves of Bone.—M. Gros has obtained some particulars regarding the distribution of nerves to the long bones. Taking the femur of the horse, he finds at least three nerves to approach the nutrient foramen,—two of them in company with the branch of the femoral artery, called "diaphysial," and the third, occasionally double, by piercing the vastus internus muscle. All of these are branches of the crural nerve; but there is in man, it seems, a branch of the sciatic in addition. Arrived at the nutrient foramen, the nerves are disposed differently in some subjects, but commonly a ganglion is developed, which receives the nervous branch which came through the muscle at one end, and one of the satellites of the artery at an interval. One portion of the ganglion is somewhat distinct, and is situated within the foramen; it gives two branches which receive the other arterial satellite (which is distinct from the ganglion), and then penetrates the medullary canal. The rest of the ganglion lies beneath the periosteal artery, which, it is to be noted, is a branch of the diaphysial, whose other branch is medullary, and supplies two satellite nerves to it. Variety occurs in the ganglion as to situation, it being near to, or more remote from, the foramen; and, as to form, it being occasionally double. The branches, both medullary and periosteal, follow, and ramify with the arteries, forming a network correspondent to the vascular; and the purpose of the ganglia appears to be to assemble, previous to this distribution, the nerves from several sources.

Ossification of the Cartilages of the Larynx.—M. Segond has stated the following facts in reference to this abnormal condition of the larynx:—1. The epoch of life at which ossification of the laryngeal cartilages commences is variable. 2. When this change takes place, it commences constantly at particular points, which, for the most part, correspond to the insertions of the laryngeal muscles. 3. Ossification commences in the cricoid cartilages, and terminates with the arytenoid. 4. When the cricoid cartilage is entirely ossified, its form becomes altered, so that the anterior part of the cartilage cannot move under the thyroid cartilage, whence it happens that persons in whom the change has occurred cannot utter the high notes of the voice. 5. The thyroid cartilage, when ossified, undergoes a notable transformation; the groove which is commonly seen in front of the superior tubercle is obliterated, and the inferior border of the cartilage is thickened, and interferes with the motions of the cricoid. 6. There is a change, independent of ossification, which may embarrass the movements of the cricoid cartilage, viz., a prolongation of the inferior cornu of the thyroid. 7. Two portions of the arytenoid cartilages resist the process of ossification for a long period, these are the superior internal apophyses. The *corpora triticia*, when ossified, become amalgamated with the great cornu of the thyroid cartilage.

NAVAL APPOINTMENTS.—Assistant-Surgeons: D. W. Stephen, to the Victory; A. Watson, to the Caledonia; R. P. Chapman, to the Torch; John C. Inglis (acting), to the Jamaica Hospital.

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REVIEWS.

Deafness Practically Illustrated; being an Exposition of Original Views as to the Causes and Treatment of Diseases of the Ear. By JAMES YEARSLEY, M.R.C.S.E, &c. 8vo., pp. 181. London: John Churchill. 1847.

Aural surgery is a branch of the profession which has of all others been neglected by legitimate practitioners, and, as a natural consequence, the treatment of diseases of the ear has too frequently fallen into the hands of empirics, whose large promises have been generally bitterly deceptive to those who have put any faith in them. Into such neglect had aural surgery fallen, that Mr. Yearsley tells us, when he first began to study the science, there was not a single regularly educated practitioner in the metropolis specially engaged in this department. Even Sir Astley Cooper, who in his early professional life gave especial attention to ear diseases, was, according to the testimony of our author, afraid to be thought an aurist; and the odium of a name was sufficient to deter him from applying his master-mind to this particular branch of his profession. Mr. Yearsley's courage, however, enabled him to despise the frightful epithet, and he tells us with much self-satisfaction, that he believes he has assisted in changing the modes of practice formerly in vogue, and in rendering it impossible for any man, by ordinary or extraordinary means, to gain in future a reputation in aural medicine and surgery, or to acquire in any degree the confidence of the medical profession, without the possession of a competent knowledge of the subject.

Mr. Yearsley's work is divided into ten chapters. The first contains a brief sketch of the anatomy of the ear. 2. An outline of the diseases of the ear which produce deafness. 3. Catheterism of the Eustachian passages. 4. Deafness from derangements of the stomach (stomach deafness). 5. Deafness from morbid condition of the mucous membrane of the throat and ear (guttural deafness). 6. Obstruction of the nose in connection with deafness (naso-guttural deafness). 7. Statistics of deafness. 8. On the best means of compensating for incurable deafness. 9. Ear-trumpets. 10. Concluding remarks.

In his preface the author says that he has "attempted to prove that, in nine-tenths of the cases which come before the practitioner, deafness will be found to have originated in a morbid affection of the mucous membrane lining the throat, nose, and ear. The latter is reached through the medium of the Eustachian tube; and according as the disease terminates in simple thickening of the mucous membrane, in adhesions, in partial or total loss of the membrana tympani, in disorganization of the whole mucous lining, in loss of the ossicula, or of the inner membranes of the fenestræ, so is the deafness more or less intense and confirmed." Those who have had any experience in the treatment of diseases of the ear will readily admit the truth of these remarks; though the author seems to entertain doubts that practitioners in general entertain these views, as he thinks they are too prone to direct their remedies altogether to the external passages of the ear.

In the chapter on the "Principal Diseases of the Ear," before the author proceeds to notice them, he remarks—"There are certain practical truths relative to deafness which, to simplify the subject, it may be as well to enumerate; they are proved to us by daily experience, and are sufficient to guide us in the choice and application of the various therapeutic means proposed for its relief. Thus, it is known, that if, from any cause, air cannot reach the membrana tympani through the external auditory passage, the facility of hearing is nearly or quite extinguished. Again, it is known that the elasticity of the membrana tympani is essential to hearing, so that, when by disease of the membrane itself, or by an alteration of the surrounding parts, it becomes thickened, the function of hearing is impaired, and can only be restored by the restoration of the membrane to its normal condition, or by making a passage through it for the transmission of sound. Many persons are altogether deprived of this membranous partition, and yet preserve the function of hearing in tolerable acuteness. It is also observed that, when the Eustachian passages, which serve as inlets for atmospheric air, and as outlets for the secretion of the lining membrane, are obstructed, deafness is the result; and the lost function is restored only with the re-establishment of their natural passages."

Having made these preliminary remarks, Mr. Yearsley proceeds to divide the complaints of the ear producing loss of hearing into three classes: —1. *Diseases of the External Ear*—The auricle, external auditory passage, and external surface of the membrana tympani. 2. *Diseases of the Middle Ear*—The cavity of the tympanum, the internal surface of its membrane; the small bones of the ear, with their muscles; and occlusion, stricture, or complete obliteration of the Eustachian tubes. 3. *Diseases af the Internal Ear*—The auditory nerve, and contents of the labyrinth.

Diseases of the auditory passage are of very frequent occurrence, and, from their frequent repetition and continuance, tend to weaken the power of hearing. From the curved nature of the passage, a distinct view of the tympanum is difficult to be obtained; hence the author, in order to *straighten* the passage, uses a speculum invented by himself, somewhat resembling the speculum of Kramer. From irritation of the external auditory passage, there is an increased secretion of ear-wax, which, being devoid of moisture from the increased heat of the parts, becomes hard, and thus produces deafness. For the removal of this, it is recommended either to syringe the passage with warm water, or to employ a small forceps. After this, if the passage and membrane should be irritable, they are to be pencilled over with a weak solution of alum, sulphate of zinc, or acetate of lead, night and morning for two or three days. If this does not restore hearing, it is likely that the inflammatory affection has extended to the tympanum and Eustachian passages, and there is an obstruction from hardened mucus. Affections of the external auditory passage produce deafness by altering its shape and calibre.

Otorrhœa occurs in strumous individuals, and during the local treatment the general health must be especially attended to. The discharge is at first generally mucous, attended with itching or tingling, rather than pain; the mucous discharge continuing, it becomes purulent; hence the lining membrane becomes thickened, and fungous growths frequently arise so large as to fill up the meatus. Before injections are used, the membrana tympani must be particularly attended to; and it must be examined by the aid of a speculum or lamp, in the absence of the direct rays of the sun, or by the injection of air through the guttural passage into the tympanum, to discover whether or not the membrane is perforated. Many cases of purulent otorrhœa have terminated fatally from the neglect of these measures; the injection passing through the perforation, and the Eustachian tube being generally obstructed, much of the solution remains within that cavity. The discharge, in consequence, is sometimes suddenly checked, and inflammation set up, which rapidly extends to the brain.

The proper treatment of otorrhœa, after it has been proved to be external, is, without losing sight of the general health, to exhibit injections, at first very feebly astringent, which may be gradually increased in strength. When the internal surface of the membrana tympani is involved, treatment by the external meatus alone will not restore hearing.

Deafness from disease of the cavity of the tympanum and of the Eustuchian tube is usually the result of acute inflammation occurring in the ear, and is commonly attended by perforation of the membrana tympani, and frequently by closure of the Eustachian tube; as a consequence, a portion of pus secreted constantly remains in the tympanum. By contact with air, the matter becomes decomposed, and hence the discharge is fetid. The decomposed pus produces caries, extensive disorganization, accompanied by dull, deep-seated pain in the ear, loss of memory and mental vigour. Deafness in this case may depend on the state of the tympanitic membrane, or the morbid changes going on in the diseased structures. If injections are used they must be very mild, especially at first, and frequently used to remove the secreted matter. By these means the disease may be retarded, and the discharge may continue during the patient's life. The most efficacious mode of introducing the injection is by the Eustachian tube, and this must be done by catheterism. In deafness arising from the state of the membrana tympani, acute sounds are more readily appreciated than the graver ones. In stricture or diminution of the calibre of the canal, it is necessary to commence with very small instruments, and effect its dilatation by a gradual advance to those of larger size. When the nerve has become torpid from disease, remedial measures should be continued for some time after the freedom of the tube is effected.

Deafness from affections of the auditory nerve, and of the contents of the labyrinth, is of frequent occurrence. Paralysis of the acoustic nerve may be produced by pressure exerted on it in any part of its course between the sensorium and its expansion in the labyrinth, by tumours within the cranium; or its functions may be suddenly abolished by loud sounds. Nervous deafness may be merely symptomatic of other diseases, as dyspepsia, or intestinal irritation from worms. Sometimes it remains after an attack of apoplexy; it also arises from the convulsions of infants during dentition, and this is considered by Itard the least palliable of all kinds. Paralysis of the nerve of hearing, as a primary disease, is very rare, though it sometimes does occur. To ascertain when deafness arises from affections of the nerve, catheterism is necessary, as well as auscultation to the ear. After introducing the catheter, and ascertaining the freedom of the Eustachian tube, we may, by admission of air into the tympanum, and examination of the sounds it produces, by means of the stethoscope, diagnose the condition of the tympanic cavity with as much certainty as that of the lungs or heart. When the tube and cavity are free, the air strikes against the membrane of the tympanum. When the shock is over, a slight blowing or rustling in the ear of the patient is heard, caused by the stream of the air. Deviations from these sounds are indications of disease in the cavity of the tympanum. There are other means of diagnosis of more easy application. When deafness arises from imperfection in any of the conductors between the air and the nerve itself, there are certain conditions under which sounds continue to be recognised by the nerve of hearing. Thus, extensive disorganization of the tympanum and its contents, or of the external meatus, may exist, and yet, so long as the nerve remains uninjured, the ticking of a watch continues to be heard distinctly when held between the teeth, because sonorous vibrations are conveyed to the nerves through the medium of the teeth and bones of the cranium.

Another means of assisting the judgment in a case of deafness is the manner in which an individual hears his own voice. If deafness arises from disease of the nerve, the patient cannot hear himself speak; but if it arises from obstruction of the Eustachian tube, the voice continues to be heard. In torpor of the auditory nerve persons generally hear better after they have been exposed for some time to loud voices. Tinnitus is of small value in estimating the causes of deafness, being occasionally present in the most varied affections of the organs of hearing. The same may be said of the ticking noise so frequently heard by deaf people. In nervous deafness it is rare for one ear to suffer alone, if the hearing has been impaired for a long time. In nervous deafness catheterism of the Eustachian tube offers an important substitute for the treatment of blistering or stimulating ointments; by this means matters may be transmitted readily

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and painlessly into the cavity of the tympanum.

The operation of catheterism of the Eustachian tube, as performed by the author, is described in the third chapter, and is as follows:—"The patient being seated in a chair, the operator applies the frontlet of Kramer to the head, buckling the straps behind, and taking care to adjust it, so that the extremities of the blades of the forceps shall reach to about a quarter or half an inch below the alæ nasi, so as to admit of their being readily lifted over the catheter when inserted. Attention having been given to this precautionary measure, the forceps, which are held firmly by the ball-and-socket joint, may be turned on one side out of the way, whilst the operator proceeds to introduce the catheter into the Eustachian tube. The catheter, previously warmed (which may be readily done by running it briskly through the fingers) is laid hold of by the operator with the right hand at its socket extremity, care being taken that its concavity presents downwards. It is then introduced into the nostril corresponding to the tube into which it is to be inserted, and urged carefully and delicately along the inferior meatus and floor of the nostril until the beak strikes against the posterior surface of the pharynx. The tact and dexterity of the operator are now put to the test, to find the orifice of the Eustachian tube; in fact, at this point a dexterity analogous to the *tour de maître* of urethral catheterism is required. Up to this time the ring of the catheter, which indicates the position of the beak, presents downwards; the operator now makes a rotation of the catheter outwards and upwards, at the same moment withdrawing it slightly towards himself. In the act of doing this, he may, in most cases, detect the beak of the catheter gliding over the rounded margin of the elliptic orifice of the passage, into which, with a gentle force, it should be then guided; with the left hand the blades of the forceps are then lifted over the catheter and screwed tightly upon it. Through the catheter thus fixed in the Eustachian passage the operator may inject air, water, vapour, or other medicaments best suited to the individual case; or, supposing he has a contracted or strictured tube to contend with, he may introduce whalebone or catgut bougies, with a fair prospect of conferring benefit on his patient."

Kramer's frontlet bandage, mentioned above, consists of a middle piece of metal, formed so as to fit the arch of the forehead, and slightly padded inside; two straps are attached to this, which fasten with a buckle. To the centre of this a pair of forceps is attached which moves in a ball-and-socket joint, and the blades of which are brought together by means of a screw. Kramer's catheters, which Mr. Yearsley uses, are described as inflexible silver ones, six inches long, varying in size from a crow quill to a goose quill. The size required is sometimes very small. Their extremity is well rounded, and they are curved only to the distance of five lines from the further extremity, exactly at an angle of 144°, so as to correspond with the lateral situation of the mouth of the Eustachian tube. They are of a uniform size throughout their whole length, and provided with a funnel-shaped dilatation at the proximal extremity, six inches in length, in order to admit the pipe of the injecting syringe. To the dilated part a ring is attached, on the same level with the beak of the instrument, by means of which the situation of the beak may be ascertained when introduced into the nose and out of sight. The catheter is also graduated, according to inches, of use in repeated introduction of it. Catheterism is *safe*, *painless*, and *efficient*.

The most frequent form of stomach disorder producing nervous deafness is chronic dyspepsia. This complaint, however, does not continue long in the chronic form without producing a sub-inflammatory condition of the throat, which extends into the cavity of the ear, and even affects the external meatus. Of course in the treatment the principal attention must be paid to the stomach.

Guttural deafness generally happens in the period of youth and middle age, especially to those whose occupations expose them to inclement weather. It commonly begins with a sense of fulness and increased heat about the fauces, aggravated by taking cold. There is an increased secretion of phlegm in the throat, chiefly troublesome in the morning. The throat appears congested, on examination, and covered with bloodvessels. When this has continued for some time, it extends to the nasal cavities and guttural passages, producing a sensation of stuffing up both in the nose and ears, caused by the increased secretion of mucus and thickening of the lining membrane. In this first stage deafness makes its appearance, and, by the aid of catheterism, the progress of the morbid state may be accurately placed. The air-douche is the most valuable aid, however, in leading to accurate diagnosis. The author has a decided objection to the use of mercury in the treatment of deafness, when given, not as a purgative or alterative, but with a view to its *specific* effect.

When the tonsils are enlarged so as to produce deafness, of course Mr. Yearsley removes them; and he tells us that he has now removed "upwards of 2000 morbid growths from the throats of more than 1400 patients, variously afflicted with the ailments to which these enlargements give rise."

In the treatment of deafness from morbid conditions of the mucous membrane of the throat, &c., leeches, once or twice a week for a considerable time, are recommended either behind the ears, or within the nostrils, to the sides of the septum narium, followed, as the disordered state of the throat diminishes, by a succession of small blisters, or the moxa along the margin of the jaw, or dry cuppings behind or upon the ears. Now, mercurial aperients should be given, and a light nutritious diet adhered to. During the prosecution of the local antiphlogistic plan, catheterism should be resorted to, when it can be performed without giving pain. Emetics are sometimes useful.

When the inflammation is chronic, the membrane thickened, and its secretion in the throat, nose, and ear considerably increased, counter-irritation behind the ear and along the margin of the lower jaw must be employed, the catheter used, with the air-douche. In stomach cases the hydriodate of potash, in *small doses* of one or two grains largely diluted, may be given. The author speaks in high praise of its efficacy. Astringent gargles of alum, zinc, myrrh, &c., may be employed. When there is thickened mucus in the Eustachian tubes, injections of warm water may be employed, or compressed air: the latter Mr. Yearsley prefers.

In deafness, when the active stages of the disorder have entirely disappeared, leaving a thickened state of the mucous membrane, and an almost entire absence of the natural secretions, both in the middle ear and the external meatus, stimuli, such as electricity, galvanism, or irritant external applications, in some cases produce marked improvement; but when the excitement of the organ has passed, it invariably produces a worse state of torpidity. Air-douches possess more power over the disorder than any other remedy, accompanied by other means to invigorate the constitution when this is required.

In deafness connected with obstruction of the nose, the author has found a probe passed along the nostrils very successful in dilating the passages of sufficient size to admit air to and fro, and it also exerts a salutary influence on the tract of mucous membrane extending to the ear.

The habitual use of errhines, especially the common snuffs, is condemned.

In the chapter on ear-trumpets, Mr. Yearsley says, "It may be set down as an axiom, that the value of an ear-trumpet consists in its power of collecting, contracting, and directing to the outer passage of the ear a greater quantity of sound than could reach it without such aid." Small instruments are, therefore, considered perfectly useless. After all the inventions the simple tin trumpet is still considered the best.

The volume contains much practical information.

A Treatise on Diet and Regimen. By WILLIAM HENRY ROBERTSON, M.D., Physician to the Buxton Bath Charity. Fourth Edition, re-written and much enlarged. Parts 1, 2, and 3. London: John Churchill, 1847.

It must be admitted that the members of the medical profession have not, till within a very short time, devoted that attention to the subject of diet and regimen which its importance demands. Many of the ailments to which the human frame is subject may oftentimes be distinctly traced to errors committed in diet, and many diseases may not unfrequently be brought to a favourable termination by simply attending to articles which are exhibited as food. The treatment of disease cannot be pursued with that measure of success which may be anticipated, when no restrictions are placed on the appetites of patients, or the mistaken kindness of their friends and nurses.

The homœopathists have acquired considerable repute in consequence of cures effected under their superintendence, and if no trickery is had recourse to by administering powerful medicinal agents in proper doses, when it is asserted that only some ten-millioneth part of a grain is given, then success must be attributed to a very close attention to the sick person's food. We do not pretend to assert, however, that the physician needs not the employment of medicines in the treatment of diseases, but we know that these agents may be powerfully assisted by a strict regard to dietetics.

In the convalescent state, when the appetite is capricious, grave errors have been often committed by the medical attendant in allowing morbid fancies to be gratified, or in recommending articles of food, such as eggs, oysters, milk, &c. We have seen many cases of relapse in typhus, which have been clearly attributable to errors in diet; and it is a satisfaction to know that the subject is now undergoing a more intelligent investigation than at any former period. The ancients well understood the importance of suitable food for persons in health and sickness, hence both Hippocrates and Celsus lay down particular rules on this subject, which they consider necessary for medical practitioners especially to study. Celsus, in cap. xviii., lib. 2, has this remark, "Hæc autem non omnium tantum morborum, sed etiam secundæ valetudinis communia præsidia sunt: pertinetque ad rem, omnium proprietates nosse; primum, ut sani sciant, quomodo his utantur; deinde, ut exsequentibus nobis morborum curationes, liceat species rerum, quæ assumendæ sunt, subjicere neque necesse sit subinde singulas eas nominare."

In these modern times the science of chemistry has come to our assistance, and while, perhaps, its doctrines, too rigidly followed by the physician, may be found in many instances deceptive, yet good service has been rendered by the knowledge gained of the relations of food to the nutrition of the body.

Dr. Robertson, in the work before us, has very properly blended experience with science, in arriving at conclusions on the subjects of which he treats, and with considerable labour has brought together much useful information. It must be gratifying to the author that the profession and the public appreciate his labours, for his treatise has now entered upon its fourth edition. This may almost be regarded as a new work, as it has been entirely rewritten, and the subjects are treated in accordance with the advanced state of science.

"The present edition of this work is prefaced by an introductory chapter on the origin, &c., of sporadic, endemic, and epidemic diseases; the influence of civilization on human health, and the expectation of life; the importance of information on the physical necessities of health, and the principal sources of disease; the evils which arise from the general ignorance of the public on sanitary questions, and from quackery, which is

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the child of such ignorance. The body of the work contains chapters on diet, ventilation, climate, and change of air; the hygienic effects of clothing, &c., especially with reference to practical influences; the physiological effects of water on the system, when applied to the skin, and when taken into the stomach; mineral waters, sleep, influence on health and life; expectancy of the combined physical causes, with reference to employment, town or country residence, &c.; and on the effects of mental culture on health."

The first volume, which is just completed, extends no further than the subject of diet; and at its conclusion there is a "rapid summing up of some of the opinions that have been offered." Here we quote the following sensible remarks:—"The amount of every man's food, however strong and well he may be, should be measured and regulated by the expenditure and consequent wants of the system, and by the amount of exercise, whether of mind or of body. His food should be eaten at stated and regular times; and, unless during sleep, he should never fast longer than five hours. This is more important in the early than in the later parts of the day. The breakfast should be, in most cases, the principal meal. The large proportion of the day's sustenance should be taken early in the day. All the alcoholic liquids should be avoided as much as possible. As little liquid as may be should be taken at the second, or midday meal—probably, after all, the most nourishing meal eaten, and the one which taxes most his digestive powers. The food should be eaten slowly, each mouthful being well and carefully masticated, and mixed intimately with the saliva. The dinner should be confined, as much as may be, to one or two dishes. Little or no supper should be eaten; and food should seldom be eaten within two hours of the bedtime. Thus living, a man will be fulfilling his duty to his health, adding to his chances of life, and to the probabilities of his prolonged usefulness, so far as his diet is concerned; and, so far, be taking the best means of warding off disease. If already dyspeptic, more care than these rules involve will be needful to him. The effect of every article of food upon his stomach, its comparative digestibility, and consequent wholesomeness, should be observed; his diet should be strictly confined to a single dish at every meal, and that must consist of what his stomach can digest without perceptible inconvenience; if he should, to secure this end, have to be forbidden the use of animal food, &c., and be confined to the most simple and least irritating kinds of farinaceous food. And, having reached that point in the scale of comparative digestibility at which the food is found to agree with the stomach, the needfulness of restricting himself to that point should be impressed upon his mind, until, by such means of quiescence, and lessened irritation of the organs of assimilation, and such other means of health, whether hygienic or medicinal, as may be indicated, the stomach has regained its tone, the gastric secretions again become equal to their great duties, and the processes of assimilation been restored to a healthy and normal state; when the steps should be retraced with caution and judgment, until he is again entitled to live, judiciously and temperately, on the various kinds of food which civilization and commerce have brought within his reach, avoiding, as common sense directs, those irregularities or other errors which may have, in the first instance, produced or contributed to the dyspeptic symptoms.

"The adaptation of the general principles of dietetics, and all we know or have to learn of the chemistry of food, and the chemistry of the human system, to the treatment of different diseased conditions, must be regarded as no secondary duty of the medical man, and no inconsiderable and unimportant means of restoring health and preserving life. The importance and needfulness of the antiphlogistic regimen, including a diet that is principally aqueous, and containing exclusively farinaceous aliment, and that in a minimum quantity, have always been admitted and enforced; but, more than this, assistance in the treatment of disease, and the fulfilment of its indications, may be more and more looked for from dietetic researches. The dietetic management of the scorbutic, purpuric, anæmic, cachectic, and arthritic conditions of the systems, by corresponding modifications of diet, may be already adduced as significant illustrations of the practical good that may be looked for in this direction, by further researches and a more zealous attention to this important department. Indeed, without a rational adaptation of dietetics to chronic as well as acute diseased conditions, their treatment must be rendered by so much more difficult, tedious, and uncertain, even if the chances of restoration to health be not otherwise wholly done away with. A form of modern empiricism unquestionably owes the proportion of success that has attended it to such dietetic management, and not to the infinitesimal doses of silica, and the like; and this may be fairly adduced as an illustration of how much dietetic management may effect in the cure of certain morbid states, without the assistance of any strictly medicinal treatment whatever. By simple attention to the quantity and quality of the daily rations, the number of the blood-globules may be diminished or increased, and febrile or inflammatory states moderated, or even removed, or an anæmic condition cured. By a modified vegetable diet, the scorbutic condition; by a mixed diet, the purpuric condition; by a fibrinous diet, the anæmic condition; by a milk diet, the cachectic condition; by a less azotized diet, the arthritic condition, may be respectively relieved, in an important degree, without the aid of drugs; and in many cases, it cannot be doubted, be more effectually and permanently influenced by such means."

The dietetic management of children during all the years of growth—and especially of the children born and bred in cities, exposed necessarily to the physical disadvantages of a deranged atmosphere and the like—is another great important branch of practical dietetics, and one in which greater and greater advances may be expected to be made. The avoidances of a dietary that is unduly stimulating on the one hand, or defectively nutritious on the other; the maintenance of power; the restoration of waste: the provision for the growth, with the least expense to the organs of assimilation, the least risk of irritation to the excitable mucous tissue, are obvious points to be arrived at by dietetic management, and to secure which must be a sanatory gain of no secondary importance.

"The question as to the use and abuse of the alcoholic stimulants is a third matter of much moment in the treatment of different morbid conditions, and in the management and preservation of the health of people who begin life, or who have to maintain life, under such very different circumstances—as the producing and the consuming, the thinking and the toiling, the citypent and the rural classes. To the rational medical man, who weighs well these different conditions, who sees diseases so often proceed from, or so often aggravated by, conditions that habitual or occasional stimulants are alone able to counteract, or which may be most readily, or most surely and safely, thus antagonized and relieved, the question of teetotalism, in its attempted general application to all ranks and conditions of the people, must show itself to be unbased on sound theory or just practical inferences."

"The question as to the feeding of the indigent, the sick, the aged, and the labourer, brings the subject of dietaries within the direct influence of the Legislature, and renders its details and facts of inappreciable value. There can be no question, that by dietaries which have been unequal to the wants of the system, or have not been adapted in character to the attendant circumstances of the life, disease, in its worst and most fatal forms, has been many times induced, in places of punishment, of well-intentioned charity, of manufacture, and of education; or that, without constant recurrence to the principles of dietetics, such occurrences may be reasonably expected to occur again. It is only a knowledge of the ordinary and extraordinary expenditure of the system, of the varying expenditure dependent on age, season, climate, toil, &c., and of the nutrementary qualities of different kinds of food, that can afford a secure basis for the establishment of useful dietaries, and adjust their modification to suit the various requirements of the economy under different circumstances."

Ventilation Illustrated: A Tract for the Schools of Rich and Poor. Pp. 36. John Churchill, London. 1848.

The publication of tracts similar to the one now before us is calculated to do much good in enlightening the minds of the public on subjects connected with their health and comfort. The fact has been so often repeated that it has almost become a proverb, that deficient ventilation is one grand cause of disease. In the dwellings of the poor, however, there has been exhibited almost a total disregard of this truth; and this must be ascribed either to the cupidity of landlords or the stupidity of tenants. The committee of the Samaritan Fund of the St. George's and St. James's Dispensary has, therefore, acted wisely and soundly in diffusing information on the important subject of ventilation, in a cheap form, in order that a large number of the population may be instructed on a matter which is deeply interesting to them. While, however, the present pamphlet is a move in the right direction, we should be glad to see publications of a similar kind issued at so cheap a rate as to be procurable by the poor (who especially require information on sanitary subjects), or that benevolent individuals may, at a small expenditure, be enabled to purchase a large number for gratuitous distribution. It is well known that religious tracts have been the means of doing much good among the humbler classes. Tracts on health may be employed with an equal measure of success for the improvement of their physical condition.

The pamphlet before us is got up in a manner calculated to interest as well as instruct those for whom it is intended. The woodcuts illustrative of the mechanism of breathing, and of the way in which rooms may be properly ventilated, are very creditably executed; and the appendix contains statements in reference to consumption, scrofula, and fever which are calculated to induce all persons to prize greatly a pure and an abundant supply of fresh air.

Companion to the Barometer. By JOHN UNDERWOOD. London: Horne, Thornthwaite, and Co., Newgate-street. 1848.

Few persons of respectability consider their houses furnished without a barometer, yet the number is very small who understand how to calculate upon the state of the weather from the movements of the mercury in the instrument. The mere rising and falling of the metal does not indicate the changes which are commonly supposed to attend such movements, and there are certain collateral facts which are necessary to be known in order to form a correct judgment from the movements of the "glass." Mr. Underwood's table is intended to afford to unscientific persons the desired information, and we have no doubt such will find it very useful, as the statements are founded on observations which have been carefully made.

Tables for Students. By WILLIAM E. NOURSE; M.R.C.S. London: Churchill.

These tables will be found useful to the student, inasmuch as they present to him information in a very condensed form. One of these tables presents the simple elements, with their chemical equivalents and symbols; two are devoted to the classification of the animal, and one to the vegetable, kingdom.

The influenza is still raging at Madrid.

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THE MEDICAL TIMES.

SATURDAY, JANUARY 22, 1848.

THE CROYDON CASE.

Men are usually rancorous in the degree of their stupidity. Passion is a failing of little minds; it is the associate of folly, and often the evidence of wrong-doing. There is neither real force, wisdom, policy, nor virtue in it; on most occasions it fails to effect its purpose; and on all, the object could be better attained by different means. The bystander usually regards such exhibitions with pity or scorn; melo-dramatic vengeance is always received with derision. Misfortune, however, even to innocent parties, not unfrequently attends these insane ebullitions, and, while we despise the weak and guilty agent, we are constrained to lament the disastrous results.

An idiot, whose imbecile revenge all persons have for a length of years disregarded, will in a moment of exasperation raise his hand and slay his best friend. Propelled by his insane impulses, he has lost the restraint of a correcting judgment. The most savage and capricious beasts of the forest are those that, by a native deficiency of mental power, are least easily reclaimed. Everywhere we find the dogma true, that imbecility and passion are correlative manifestations.

An argument that can be proved true of individuals will equally apply to associated bodies, and with pre-eminent justice to boards of guardians, coroners' juries, and, "*id genus omne*," of public functionaries. The public board in the one case, and the legal tribunal in the other, exercise the most important duties that can possibly be committed to the members of a state—the sustentation of life, and the initiation of a criminal process leading to the condemnation to death; and there is consequently a corresponding necessity of an enlightened, discreet, and impartial judgment being exercised in the performance of functions so grave and sacred.

We will dismiss, for the present, the conduct both of coroner and jury at the recent inquest at Croydon, and confine ourselves to the proceedings of the board of guardians in reference to the case. It is now well known that the board of guardians, on the application of a member of the family for an order on the attendance of the union surgeon, *refused to give it*, and that in consequence of such refusal the medical officer, who had previously visited the patient in his official capacity, and in expectation of an order formally authorizing his attendance, declined further attendance on the case. It is unnecessary for us to pursue the case further; we mean to confine ourselves to the fact of *the refusal* by the board to give the order, *and of the medical officer thereupon to attend the patient*.

Now, it might be expected, in the delusion that the board of guardians of the Croydon Union were possessed, if not of the ordinary proportion of intelligence, at least of the ordinary amount of discretion, of other mortals—seeing what lamentable results had issued from their unfeeling cruelty or their sordid parsimony—that they would have been cautious enough to refrain from any strong expression of opinion on the matter, and allowed the public indignation to subside, or would have attempted to mollify it by a more humane and decorous course of action on future occasions. Here silence would have been wisdom, repentance amiable, and reformation perhaps a condonation of their guilt. They have *not* thus been guided by the counsels of prudence; they deserve punishment, for they have invoked it; they have wilfully run their heads against a wall, and they must not complain, though they entail upon themselves much suffering, severe reprehension, and bitter regrets.

These guardians have held an extraordinary meeting, and at that meeting passed the following resolutions:—

"That this board, *after having taken into consideration the verdict of the coroner's jury*, in the case of Elizabeth Hopkins, *alias* Howard, is of opinion that Mr. Berncastle can no longer be allowed to act as Mr. Bottomley's substitute for this union."

"That Mr. Bottomley has incurred the severest censure of the board, by having more than once restrained Dr. Berncastle from continuing his attendance upon the said Elizabeth Hopkins while suffering under the pains of protracted labour, and that his services, likewise, would at once have been suspended by the board, had he not been acting for so long a period as six-and-thirty years, without previous discredit, as parochial medical officer for the town and union of Croydon."

Was it within the sphere of the duty of the board, knowing that they had refused the necessary order, to take any notice of the verdict of the jury?

What right had they to pass such a condemnatory resolution on Mr. Bottomley, and by what rule of justice did they dismiss Mr. Berncastle? There was *none, none*—emphatically NONE. As their servants, both gentlemen acted in but too faithful conformity with the instructions of the board; as parochial officers, they did their duty: where, then, lies the wrong?—who is the criminal?

The board refused to give an order for the attendance of its officer; from that moment, in reference to this case, that gentleman ceased to be the officer of the board: the subsequent acts of the surgeon are those of a private individual, with which the board, in their official capacity, have no right to take cognizance. The medical officers have disobeyed no law, infringed no rule, neglected no ordinance of the board; there is no moral imputation upon them; on the contrary, they have shown implicit and immediate subservience to the commands of their superiors, and then, with a wonderful alacrity towards injustice, these very authorities turn round upon their servants, and reproach them for their obedience. O! what stupid, rash, meddlesome, and unjust behaviour! The folly of this step is almost incredible. Nothing but an uneasy and impatient smarting under a conviction of wrong done, with an irritating desire for self-justification, or the most stolid and besotted ignorance of their own moral obligations, amounting to an entire destitution of conscience, could have prompted this unspeakably silly procedure. The guardians are criminal, and they know it;—they, or their relieving-officer, even according to their own statement, neglected the duty of inquiring into the case, and they stand self-convicted of indolence, shabbiness, and inhumanity. They are impatient to be justified for what they know is unjustifiable, and they attempt to sacrifice for this purpose, without remorse, the character of a gentleman who has served them for thirty-six years "*without previous discredit.*" What malign and ungrateful conduct is not this?

But have the guardians nothing more direct and explicit to say in defence of themselves? They have. In a resolution passed at an extraordinary meeting held on the 15th day of January, they say "that no one of the guardians at the board on the same day (the 28th of December last) understood *that the deceased was in labour at the time*, or that Mr. Berncastle had been in attendance previously." The board of guardians are truly very innocent gentlemen, or very crafty. We opine the latter; but their craft this time has overreached itself.

Following the resolution in which it is stated that no one of the guardians understood that the deceased was in labour at the time, they publish a minute of the said meeting of the 28th of December, when the board was distinguished by such felicitous ignorance. It runs thus:—

"At this meeting Mr. Smith, the relieving-officer for Croydon, reported that *last evening* the daughter of John Howard, of Croydon, a girl about twelve years of age, had applied to him for a *midwifery order*, for her mother, and that he had directed her to send her father to him, but that the father did not come. The relieving-officer also reported that the girl had *again* made an application *this morning*, and was *now* present, whereupon she was admitted to the board and *reported* her application; when it having been ascertained that Howard," &c. &c.

Now, can any person, not an idiot, believe that, three applications having been made within eighteen hours, of which the guardians were cognizant, they were ignorant of the woman's extremity? It is not common sense to suppose it; and, if they were, it is not common care or humanity not to have inquired for the fact? We believe that scarcely a man will be found who will give credit to this shuffling resolution. It does not look honest; it has the aspect of a dirty, felonious fabrication—dirty as it regards their own character, felonious as it reflects undeserved odium upon the character of others. Is there no censure ready for the lazy official, who, having been twice applied to for a midwifery order, failed to do his duty by inquiring into the facts of the case? No; he who is equally guilty with his masters is, of course, allowed to escape with impunity. The defence is cleverly trumped up for the nonce, and we do not attach to it the slightest credit.

A question occurs to us—embracing a subject of considerable importance to Mr. Bottomley—as to what would be the most becoming conduct for that gentleman to pursue upon the publication of this resolution? Many gentlemen would, perhaps, take no notice of the censure, trust to the chapter of accidents, and continue in the conscientious discharge of their duties until another occasion should occur which, however unjustly, would necessitate resignation or dismissal. Some, perhaps, would resign at once; others, probably, would take an intermediate, but not less spirited, course—hold their office, and challenge an investigation by the poor-law commissioners into their character and conduct. We think thirty-six years of unimpeachable observance of duty, and of honourable public service, would be an important recommendation. We, however, offer no opinion. Each man is the best judge in his own case. To counsel a private individual is an impertinence of which we do not intend to be guilty.

We think, however, that this case will form a powerful argument for the revision of the whole system of medical relief. There must be some well-defined regulations passed, by which the

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health and life of those living on the disputed territory—between pauperism and independence—may be secured, as far as medical science will admit, and the duties required from union surgeons more clearly denoted. This is a subject to which the attention of the Poor-law Convention will doubtless be directed; and we trust that their labours will obtain for the profession and the public a great improvement upon the present system of poor-law medical relief.

AN ADEQUATE SUPPLY OF WATER ESSENTIAL TO PUBLIC HEALTH.

It has been generally acknowledged that the *avant courriers* of sanitary reform have always been the members of the medical profession; and they have proved themselves to be not only public benefactors in checking the progress of disease when manifested, but in suggesting the use of such means as are eminently calculated to prevent its development. No class of men deserves a higher meed of praise than the medical, as its efforts to promote the physical well-being of society directly militates against the worldly interests of those who have the care of the sick. The sources of wealth to them are the diseases which afflict their fellow-creatures; and yet, with a strange philanthropy, no efforts have been spared to diminish the amount of sickness, and thus to bring about an era in which the services of medical practitioners will be little needed. It is to their instrumentality principally that an improved method of constructing the dwellings and sewers of large towns has been adopted, and they are still labouring with an untiring perseverance to render densely populated cities as salubrious as the most favoured village in the kingdom.

The attention of sanitary reformers has been especially directed to the improvement of the metropolis, not only because it is entitled to especial consideration from the number of its inhabitants, but because whatever beneficial changes are here brought about will, in consequence of its high position, be more speedily adopted by other large towns. In this modern Babylon there are causes in operation which are effectual in producing the most disastrous results; into many streets and alleys the light of day scarcely finds admittance; there the air is impregnated with deleterious inhalations, and there the inhabitants live in the midst of filth, without any adequate supply of water to accomplish the cleanliness of their persons and of their habitations.

There is no doubt whatever that a deficient or an inferior supply of water to the inhabitants of any locality must eventually be injurious to their health; and it is equally certain that London, though possessing many companies established for the express purpose of supplying the population with pure water, and having within itself sources from which almost any quantity can be obtained, has hitherto been doomed to suffer from a supply deficient in quantity and not very good in quality. While this fact has been adverted to by the members of the medical profession, and other sanitary reformers, it has not been brought forward with that prominence which its importance demands. We consider it, therefore, our duty to direct attention to the circumstance at the present moment, in order that some efforts may be made either to induce the present water companies to be more liberal in their supplies to their customers, or that some more efficient means may be adopted than are at present used to afford an abundant and constant supply of water to every part of the metropolis.

It is to be lamented that so large a city as London should be dependent, for its supply of water, on nine or ten companies, who enjoy a complete monopoly, and are more concerned to benefit their own pockets than the public health. Their misdoings have, on various occasions, been the subject of parliamentary inquiry, yet no efficient means have been adopted, up to the present time, to compel the monopolists to do justice to those who are dependent on them. So far back as 1821, a committee of the House of Commons, which was especially appointed to investigate the conduct of these water companies, concluded its report with the following remarks:—"The public is at present without any protection. In case of a dispute there is no tribunal, but the boards of the companies themselves, to which individuals can appeal; there are no regulations, but such as the companies may have voluntarily imposed upon themselves, and may therefore at any time revoke, for the continuance of the supply in its present state, or for defining the cases in which it may be withdrawn from the householder. All these points, and others of the same nature, indispensably require legislative regulation where the subject-matter is an article of the first necessity; and the supply has, from peculiar circumstances, got into such a course, that it is not under the operation of those principles which govern supply and demand in other cases; and your committee are of opinion that, as it cannot be precisely foreseen how the rules which they are prepared to suggest for these purposes may work, it would be expedient that they should be enacted, in the first instance, only for a short period."

These companies, while they profess to supply the inhabitants with water, do it only at stated intervals—about three or four times a week—and then only for about an hour, so that many persons who pay a high price are often without it. Amongst the poor, butts, tubs, pans, and earthen vessels are employed to catch the *precious* fluid when it comes; and these receptacles, being uncovered, add to the impurities of the water. Mr. Toynbee informs us that "The butts are made of wood, from which the paint has often decayed; sometimes the wood itself is decayed; they have commonly no cover on the top, and a film of blacks and dust forms on the surface of the water." The scanty nature of the present supply induces the poor to be very sparing in the use of it; hence they neglect cleanliness in their persons, in their houses, and in their food; and who can be surprised that diseases should be rife amongst them, and exercise such a fatal influence as they do?

It must be remembered also that the water supplied is from the Thames, into which the sewage of more than 2,000,000 inhabitants is constantly poured, in conjunction with the filth from slaughter-houses and stables; and it is possible that a portion of the water which passes from the dwelling-houses one day, after having been cleared of its insoluble impurities, may be supplied again as an article of drink, or to be employed in cooking.

An ingenious and, in all probability, a practicable method has been suggested to break up the existing monopoly of the water companies, and to supply the inhabitants with a pure and an abundant quantity of this all-important fluid, viz., that of boring artesian wells. A number of these have been already sunk, and are in successful operation; and it appears from geological investigation, that the London chalk basin contains an inexhaustible quantity of water. In a pamphlet recently published by Mr. J. L. Tabberner on this subject, the author makes the following remarks:—"The chalk formation, which lies next to the sandbed, extends in its area, under the superficial and tertiary deposits, between 3000 and 4000 square miles. Of this area from 1000 to 1200 square miles crop out to the surface immediately around London; which fact a reference to any of our geological maps will evince. It is from this exposed surface (open to receive the rain) that the innumerable fissures of the chalk, which are scattered throughout the whole formation, receive their constant supply of water. The incessant repletion of that supply is verified from the quantity of rain falling upon the exposed surface of the chalk, which is taken at twenty-one inches per annum; and, allowing one-third of the gross quantity to be taken away by evaporation, the quantity penetrating the chalk upon every square mile of its surface is equal to about 3,208,228 hogsheads, or on every one hundred square miles 320,822,800 hogsheads, or on a thousand square miles 3,208,228,000 hogsheads—adequate to an annual supply of 1604 hogsheads to every individual of a population of 2,000,000 inhabitants, or a daily supply of 274 gallons to every individual."

In every instance in which a well has been sunk in the chalk an abundant supply of water has always been obtained, and when the pumping is stopped the water speedily rises to the same level in the well as it stood at first. At the Government artesian works in Orange-street, Trafalgar-square, nearly 400 gallons per minute have been raised for from twelve to sixteen hours daily; and during the dry weather of last summer, though the works were in operation night and day, the water sunk only on an average thirteen feet, at which level the spring constantly supplied the quantity withdrawn.

If, when further experiments have been tried, it shall be found that the boring of artesian wells will be the means of affording to the inhabitants of London a good supply of wholesome water, and that the undertaking will afford a fair profit for capital expended, there is no doubt but enterprising individuals will speedily engage in the work. While these sources of supply will not supersede altogether the old water companies, they will be the means at least of bringing them to their senses, so that they will afford their commodity at a moderate charge constantly, and at such a pressure that every apartment in a building may be supplied. It is high time that something was accomplished, for in vain will other measures of sanitary reform be adopted if the water monopoly is to remain intact. The subject is worthy the close attention of the members of the medical profession; and their opinions will not fail to exercise a powerful influence upon the Government and the public. A threatened danger will now add weight to their arguments; and we hope the time is not far distant when every house in this great city will have a supply of water adequate to all the requirements of comfort, cleanliness, and health.

SURGERY AT THE GLOUCESTER INFIRMARY.

The case of Henry Ridler, the young man who was admitted into the Gloucester Infirmary with a compound dislocation of the ankle-joint, and

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who was afterwards removed in consequence of alleged neglect, has not yet been finally disposed of to the satisfaction of all parties. On the 6th of this month a quarterly meeting of the governors was held, and the matter was again brought forward in the reading of the minutes, when the chairman stated that it was the general feeling of the weekly board that no further notice should be taken of the subject. No doubt the members of this official body thought that they had done wonders in taking up the matter at all, and their notions of justice are perfectly in accordance with what might be expected from non-medical hospital functionaries. These gentlemen have scarcely ever the faculty of seeing both sides of the question, and the power of action appears only to be imparted to them when the spur of public opinion is plunged pretty sharply into their sides. It is nothing singular, therefore, that, after having in a public newspaper been charged with pronouncing a verdict upon *ex parte* statements, they should wish their fiat to be as the "law of the Medes and Persians, which altereth not." Mr. Purnell, however, one of the governors of the infirmary, administered to this weekly board a species of rebuke, which is commonly denominated "faint praise," in a short speech made in reference to the chairman's statement, which must have been anything but palatable to the hebdomadal officials. Mr. Purnell remarked, "he was not prepared to say that the weekly board had not taken a proper course; but at the same time he regretted that notice had not been given to the friends of the patient, that they might attend the investigation, to satisfy themselves that there had been no neglect in the case. It would have been more satisfactory to the public if such a course had been followed; the public looked with suspicion upon anything like a one-sided investigation. He did not know whether he ought to go into the matter after the full investigation which the weekly board had made."

The speaker was singularly unhappy in his endeavour to shield his friends, for in his brief speech he first says that he regretted the friends of the patient had not been requested to attend the investigation, and directly afterwards adds, that "he did not know whether he ought to go into the matter after the *full investigation*," &c.

Some reflections having been made at the meeting upon Mr. Batten, the surgeon who amputated the unfortunate patient's leg, that gentleman considered it necessary again to make a statement of the case in the *Gloucester Journal*; he says—

"In the first place, supposing the dislocation to have been reduced, I maintain that proper skill and attention would have enabled the surgeon to have kept the bone in its relative position; that a well-padded foot and leg splint was highly necessary, and ought to have formed part of the treatment; and that there was nothing in the case to prevent its use. Secondly, if the bone had been thus preserved *in situ*, the lips of the wound might have been to a great extent closed, the aperture into the joint lessened, and the healing process facilitated; points well known to be of the very highest importance in the early treatment of such cases. Thirdly, having omitted or failed to prevent the end of the tibia from protruding through the wound to the extent of two inches and upwards in length, and half its circumference in depth, and seeing that the death of this large portion of bone so situated was inevitable, and that the constitutional irritation, local inflammation, and suppuration would consequently be greatly increased in extent and duration, I do say that every surgeon of ordinary intelligence will agree with me in condemning the useless and unjustifiable risk to which the patient's life was exposed by the delay in proposing amputation. I am told by Ridler that this alternative was first broached only a fortnight prior to my visit, when the surgeon intimated that it was necessary for him to 'pare off' the exposed portion of bone. Fourthly, the condition of the parts concerned in the injury strongly justifies the belief that the dislocation never was reduced. There existed not the slightest trace of an attempt at union of any kind. The cartilages of the articulating surfaces of the tibia, fibula, and astragalus, were completely ulcerated, and the latter bone wore the spongy, worm-eaten appearance of the ends of bone in the advanced stage of scrofulous disease of joints. I stated in my former letter that the projecting extremity of the tibia, forming the inner ankle, was overlapping the skin, and you shall hear what Sir Astley Cooper, in his admirable work on 'Dislocations,' says on this point:—'The integuments are sometimes nipped into the joint by the projecting bone, and then it cannot be reduced without making an incision to allow the skin to be drawn from under the bone.' Now this was not done in Ridler's case. A little further on the same author says, in describing a case that fell under his care, 'The tibia projected at the inner ankle, the fibula was broken, and the skin was tucked in under the extremity of the tibia.' 'The skin was divided, and the bone reduced, but it was much opposed by violent spasms of the muscles.'"

In addition to this, Mr. Teague, another surgeon, who saw the patient the next day after he came out of the infirmary, and sympathizing with Mr. Batten for the manner in which his name was handled by the governors, writes in the same journal—

"I cannot hesitate for a moment in seconding all you have said; indeed, I expressed an opinion then (in which Mr. Tuckwell perfectly coincided), and which I still retain, that even at first it must have been impossible to have reduced the dislocation, complicated as it was with a comminuted fracture of the fibula, and other extensive injuries of the tibia through its greater extent. But, supposing the ankle to have been put into its place, surely there was a great omission in not applying splints or some apparatus to retain it there till union had at least been partially effected.

"Then it appears that Ridler was kept ten weeks in the hospital, buoyed up by the idea that his limb would be saved at the expense of a stiff joint; for you will remember he told us that he had received a message by a pupil from his surgeon on the very morning before his departure, that if he did not leave the infirmary the limb might be saved with a stiff joint, and this in the face of the following facts:—

"1. An extensive suppurating wound.

"2. Two inches and better of bone exposed and dead.

"3. Part of the integuments overlapped by the articulating extremity of the tibia.

"4. Disorganization of the greater part of the foot. And

"5. United fractures of the leg, which must have been broken again so as to have placed the joint in the right position."

Now, we ask, who are the gentlemen that compose the weekly board?—are they surgeons, and, therefore, competent to pass a correct opinion? If not, their "full investigation" is little better than a farce. We would advise the surgical officers of the infirmary, for their own credit's sake, forthwith to place the matter in the hands of members of their own profession, and abide by their decision; and we should think that Mr. Batten and the other two surgeons who attended with him at the operation would immediately agree to such a proposal.

PROFESSOR SYME'S APPOINTMENT.

It is quite clear that the Senatus of the London University, in electing the different officers for their establishment, have a right to choose individuals who may appear in their wisdom most competent for the purposes for which they are required; and it must be admitted that, hitherto, their selections have been judicious. That they should have filled most of their chairs by strangers, and not by "London men," has, we do believe, been very advantageous, for had teachers been elected from amongst those of the metropolis, or from amongst their *protegés*, it would, no doubt, have created all sorts of intrigue, and we should have had the chairs of the London University filled with sons, nephews, and obsequious dependants, of which system we now see too many lamentable examples in most of our London schools.

On the present occasion, when a surgeon of character and experience in "Modern Athens" has been elected to their hospital, we are quite of opinion that the Senatus has acted wisely; and we only wonder that a person filling so distinguished a place in the profession in Scotland as Mr. Syme, should have *condescended* to accept of of the office, and associated himself with the "worthies" of the London University!

THE UNPROTECTED SURGEON.

[To the Editor of the Medical Times.]

Sir,—In my former letter I endeavoured to prove that it is a monstrous injustice to leave the surgeon in his present unprotected position against fraud and imposition.

It is perfectly ridiculous to say that a surgeon is legally qualified to practise his profession so long as he is legally disqualified to recover the just and fair rewards of his labour, and a fair remuneration for the outlay which he must make in the proper discharge of his duty to those who employ him.

I endeavoured to show that it is perfectly impossible to treat properly any surgical case without having recourse to medical treatment; and that, as the law now stands, the introduction of a single charge for anything beyond mere manual interference vitiates his right to obtain from the law any redress. This leaves the surgeon in the difficult position of being obliged to neglect medical treatment altogether, to the great disadvantage and danger of his patients, or be ready to suffer a considerable loss for an actual outlay, for it is next to an impossibility for a surgeon practising in the country, at a distance from a dispensing chemist (as these properly call themselves), to procure for his patients the means necessary for their safety except he supplies them himself; and I do not hesitate to say that the preparation of medicines would be much safer and better conducted under the superintendence of the prescriber, than entrusted to persons who are not at all, or very little, acquainted with the properties of the medicines ordered, as most of the chemists must be from their want of proper education.

I shall not here again enter into the consideration of the superior claim of the surgeon to legislative recognition above that of the apothecary; neither shall I indulge in any invidious distinctions between the comparative excellence of parties engaged in the same field of usefulness; and I ask for the surgeon no more than is enjoyed by other members of the community.

The surgeon is obliged to observe all the duties of a subject and a citizen; he is compelled by law to pay all the taxes and imposts of the state, and he is obliged to fulfil all his duties and engagements to society and the public; he should, therefore, in the discharge of his avocation, have extended to him all the privileges and protection of a subject and a citizen.

The French Government, aware of the importance of the medical profession, and of its direct relation to the national welfare, have not neglected to take it under its immediate protection and direction; and accordingly it has at all times a body of men to which it can with confidence refer whenever the public welfare and health are seriously threatened or disturbed; and I am satisfied that the medical profession in this country will never be found in its proper

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place until it is placed under the protection, and control, and direction of the Legislature, nor can any real reformation be effected until it is unshackled from the contending prejudices and interests of present monopolists. Are we, indeed, too wise to learn prudence of our neighbours; too proud to adopt the judicious measures of an enlightened nation; or too indifferent to the interests of our own population to give any consideration to what has so direct a relation to the public health?

I think that one of the most important uses of any journal is to give an opportunity to the individuals of that section of society whose interests it professes to espouse, to make known their opinions, wishes, wants, and grievances; and if, in doing so, any person shall be found sufficiently courageous to come before the public, let him be answerable for the consequences: if he has, in doing so, offended against the laws, upon his own head be the penalty; or, if he should have outraged common sense, let him bear the infliction of public ridicule and general laughter; but so long as he, by giving his name, guarantees the safety of his publisher, I think he has a right to be heard. Your obedient servant,

Bedford-terrace, Bootle. C. D. FITZPATRICK.

DR. ROBERT LEE'S CARDIAC NERVES.

SIR,—Having perused, with great satisfaction, in your valuable journal of last week, the report of the Physiological Committee of the Royal Society, I think there can now be but one opinion of the nerves of Dr. Robert Lee's heart; and as an old fellow of the Royal Society, and a member, too, of the medical profession, I do think that, in some shape or other, the nefarious attempt to impose upon the society calls for a signal mark of their disapprobation. It has often, and will often, happen, that papers are presented to them which, from want of novelty or importance, they very properly refuse to publish in their "Transactions;" but a fraudulent attempt, such as has been made on this occasion by Dr. Robert Lee, ought undoubtedly to be met with some appropriate public mark of the society's opinion of him as a man of honour and veracity, and they ought deliberately to consider how far such a man is a fit person to remain in their body.

Somerset-house, Jan. 17. F. R. S.

ANOTHER STETHOSCOPIC BLUNDERER IN MR. LISTON'S CASE.

SIR,—In common with many of my professional brethren of this city, I am not a little surprised that, in the *exposé* which you have made of the fallacious diagnosis afforded by the stethoscope in the case of the unfortunate Liston, you should have omitted the name of STOKES in the list of *eminent* auscultators who had examined this patient.

Mr. Liston visited Dublin in October last, and, I believe, with no other view, and for no other purpose, than to get his chest examined by the stethoscope; and I am compelled to state that Dr. Stokes, as well as Drs. Watson, Williams, Forbes, and Latham, did not detect the aneurism of which poor Liston perished. I may also add that amongst ourselves we were rather surprised that Mr. Liston did not consult any of our most skilful surgeons; but it appears that he consulted none of the London surgeons (not even young Quackley), until the day previous to his decease, when he saw Sir Benjamin Brodie, and who at once pronounced the disease to be aneurism!

Dublin, Jan. 15. ERINENSIS.

DR. ROBERT LEE ON THE NERVOUS SYSTEM OF THE HEART.

[To the Editor of the Medical Times.]

SIR,—I presented a paper "On the Nervous System of the Heart" to the Royal Society, which was read on the 20th of May, 1847. The following is the abstract of this paper in the printed proceedings of the society.

"The author premises a historical notice of the various opinions entertained by distinguished anatomists respecting the nerves of the heart: some having maintained that the human heart is copiously supplied with nerves, and others that it has few or none. In September, 1846, he resolved to dissect, under the microscope,(a) the nerves of the heart while covered with alcohol, as he had done those of the uterus. His examination of the fœtal heart, of the heart of a child at the age of six years, of the heart of an adult in a sound state, of the human heart greatly hypertrophied, and of the heart of the ox, warrant the following conclusions: 1. That the bloodvessels, and the muscular structure of the auricles and ventricles, of the heart are furnished with numerous ganglia and plexuses of nerves, which have hitherto been neither described nor represented by any anatomist. 2. That these nervous structures of the heart, which are distributed over its surface, and throughout its walls, to the lining membrane and *columnæ carnæ*, enlarge with the natural growth of the heart before birth, and during childhood and youth, until the heart has attained its full size in the adult. 3. That when the walls of the auricles and ventricles are affected with hypertrophy, the ganglia and nerves of the heart are enlarged like those of the gravid uterus. And 4. That the ganglia and nerves which supply the left auricle and ventricle in the natural state are more than double the size of the ganglia and nerves distributed to the right side of the heart.

"The author observes that the ventricles and auricles of the human heart and of those of the hearts of the larger quadrupeds are covered with two distinct membranes: the anterior is the serous membrane, connected by cellular tissue with another distinct tunic, which has scarcely, if at all, been noticed by anatomists. This second membrane is stated to have a dense fibrous structure, to be semi-transparent, and to resemble in a remarkable manner the aponeurotic expansions, or fasciæ, covering muscles in other parts of the body and, like them, it sends numerous fibres or processes between the muscular fasciculi, bloodvessels, nerves, and adipose substance of the heart. This membrane, the author thinks, may appropriately be termed the *cardiac fascia;* and he states that through this, after the removal of the serous membrane, there are numerous ganglia and plexuses of nerves visible to the naked eye. If these nerves be traced backwards towards the base of the ventricles, they are seen to terminate in a great ganglionic plexus situated between the pulmonary artery and aorta, into which plexus branches of nerves enter from the par vagum of each side, the recurrent and the sympathetic nerves. From this great ganglionic plexus, which the author considers to be the root of all the principal cardiac nerves, branches invested with a soft neurilema proceed to the auricles and ventricles and their septa. Large flat branches of nerves pass from this ganglionic mass to the coronary arteries, the tracks of which they completely surround like a sheath, and all the ramifications of which they accompany, not only over the surface of the heart, but into the muscular substance; and they are distributed, with these arteries, throughout its walls to the lining membrane. The author also states that there are besides numerous branches of nerves from the great ganglionic plexuses, at the base of the heart, and surrounding the coronary arteries, with ganglia distributed over the surface of the ventricles, which do not accompany the bloodvessels, but run obliquely across them, and also across the fibres of the muscular coat. These superficial cardiac nerves are described as being remarkably soft, flat, of a grey colour, and somewhat transparent, as had formerly been stated by Scarpe. Towards the left side and apex of the left ventricle these nerves lie in grooves and depressions of the muscular coat, and spread out into ganglionic enlargements, from which innumerable filaments are sent off laterally to the muscular coat. There are ganglia of considerable size on these superficial nerves, where they are crossing the arteries, which send branches to the coats of the vessels, and some of which branches pass down with the vessels into the substance of the heart."

Reference is made to three drawings intended to accompany the paper, but the first of these drawings only was received with the paper.

The first of these drawings referred to was presented to the society several months before this paper; the second accompanied it; and the third was presented on the 2nd of June. These three drawings were painted by Mr. Charles West, the artist, so well known for his great talents and accuracy in delineating the nerves of the human body. Mr. West was employed about twenty years ago by Mr. Swan to illustrate his magnificent work "On the Nerves of the Human Body." Before employing Mr. West to delineate the ganglia and nerves of the virgin uterus and heart, I consulted Professor Owen as to his fitness for the task; and Mr. Owen recommended him in the highest terms, and said he was not acquainted with any artist in this country to whom the matter could be better confided. I trusted implicitly to his accuracy.

It is due to the long-established reputation of Mr. West, whose drawings of the nerves of the heart are now denounced as "misrepresentations," to state distinctly that, since these three drawings were presented to the Royal Society, the preparations have undergone extensive alterations. All the spare time that I could command during the spring and summer months was devoted to these dissections, with the view of rendering them more complete; and the principal drawing of the hypertrophied heart was not presented till the 2nd of June, a month after the paper, and then in an unfinished state. The alterations in the preparation were made because I had sufficient reason to believe that they would never be examined by referees from the Committee of Physiology. The large drawing was delivered to the under secretary, in the presence of the Marquis of Northampton, with the express understanding that it should be returned to Mr. West to be finished. On this ground I have successfully claimed the restitution of the drawing, and it is now in my possession, and Mr. West will have ample time afforded him to render it as accurate and perfect as it can possibly be made. There are, however, numerous ganglia formed both upon the uterine and cardiac nerves which no artist can possibly represent, from the depth at which they are situated. I have not counted these non-represented ganglia, but probably they do not amount to fewer than fifty, and possibly they may greatly exceed that number.

The request contained in the following letter was immediately complied with, as far as the publication of the paper was concerned.

"4, Saville-row, Nov. 1, 1848.

"Dear Sir,—Will you have the goodness to inform the Committee of Papers, at the next meeting of the Council of the Royal Society, that it is my desire that the paper 'On the Nervous System of the Heart' should not now be published in 'The Philosophical Transactions.' As the subject is one of the highest anatomical and physiological importance, and as I have expended much time and labour on its further investigation since the paper was presented to the society; and as the nervous structures of the heart are now far more completely developed than as they have been represented in the drawings, which are yet in an unfinished state, I am desirous of having the drawings returned to the artist, in order that he may correct and complete them. When this has been done I shall again have the honour of presenting them to the Royal Society, and bringing the whole subject once more under their consideration.

"I am, dear Sir, most sincerely yours,

"ROBERT LEE.

"To Professor Christie, Secretary to the Royal Society."

All the preparations described or referred to in this paper "On the Nervous System of the Heart" are in my possession, and it will afford me the greatest satisfaction to submit them to the examination of every member of the medical profession. These dissections have already been examined by many distinguished anatomists, and they demonstrate the truth of the conclusions stated in the paper.

As the reports of the Committee of Physiology to the Council of the Royal Society are secret and confidential, and have never been published, when the object of the report was to recommend that a paper should not be printed, I am forced to conclude that the anonymous report published in the last number of your journal is not authentic.

I have never written one word anonymously to assail the referees on this paper, nor excited any other person to do so. The Marquis of Northampton knows that I have contradicted the statement which has been made respecting the conduct of the council in reference to this paper.

Your obedient servant,

ROBERT LEE.

THE ROYAL FREE HOSPITAL OPERATIONS.

[To the Editor of the Medical Times.]

SIR,—The editor, or proprietor, of the *Lancet* seems fixed upon the horns of a dilemma, from which he finds it rather difficult to escape. I allude to those most unusual advertisements relating to the surgical operations, or rather mutilations, at the Royal Free Hospital. The profession at large estimate these practices as they deserve, and the professional press has denounced them as the grossest and most unblushing pieces of quackery. Nor can the chief actor, the editor of the *Lancet*, be ignorant, although to a certain extent insensible to, or regardless of, the general odium in which such practices are held. The wilful prostitution of the pages and influence, even though small, of a public journal to promote in an illegitimate manner the interests of a relative, however near, is an outrage, not only upon society, but upon the press itself, and as such

(a) Lenses magnifying six and twelve diameters.

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has met with deserved censure, and the just reprobation of the professional portion of this powerful engine. Of this, indeed, the principal delinquent himself seems perfectly sensible, and, as he can neither justify nor palliate the exhibition of such paternal solicitude, endeavours to excuse it, till forgotten, by the extraordinary enunciation that the objectionable announcements are in perfect accordance with the ordinary and legitimate rules for the conduct of a public journal.

In the "Notices to Correspondents" in the number of the 8th inst. we are told that the questionable advertisements are nothing more than what is usual and common with public journals; that Mr. Liston's operations have been repeatedly advertised in the same way; that, had the name in the present case been any other than the obnoxious one, there would have been no complaint or remark. The first of these allegations is positively untrue. I admit that latterly it has been the practice to announce, or rather recapitulate, in the daily papers the principal contents of the weekly medical journals, and of necessity, in connection, the names of some of the principal contributors. But it has never fallen to my lot to observe an entire advertisement exclusively devoted to a detail of the wonderful performances of one single individual, and that individual a son, and as yet scarcely emerged from juvenile obscurity.

As regards Mr. Liston, his name has undoubtedly been advertised in connection with his operations. But he has not stood alone, like the hero above mentioned, but in juxtaposition with others, who, though they could not eclipse, yet shared, the credit and advantages of honourable publicity. Mr. Liston's character and reputation, and his position at University College Hospital, placed him above all apprehensions from honourable association; he did not require to stand alone, to attract notice or to enhance his reputation.

With respect to the third allegation, I cannot go the whole length of the delinquent editor, "that no other name would have caused either comment or animadversion." Under the circumstances assumed, the credit of the speculation and the odium attached to it would have been at once assigned to the individual so unwarrantably forced upon the notice of the public. No editor could be considered so insane, or idiot enough, to peril the credit of his journal by stooping to such open and fulsome quackery. If the operations of one individual—of Liston, for instance—were alone announced, it could only be with the view of enhancing the value of the matter, from the acknowledged reputation of the operator, and not as a puff for his special advantage. Not so, however, upon the present occasion: the exploits, however daring and appalling, of a lad hardly emancipated from the leading-strings of professional pupilage, are not the means for elevating the character of a professional journal, or of exciting any extraordinary *gobt* for the perusal of its pages.

But now let us assume the contrast, and suppose that some "aspiring young" candidate for professional emolument, if not fame, had contrived to bring his contributions before the profession through the medium of the *Lancet*, but, dissatisfied with such obscure publicity, advertising himself and his exploits, as the only prominent and valuable ware to be found in its pages, somewhat after the manner under review. What would be the course of the *Lancet?* Bulls and anathemas, leaders, "notices to correspondents," and every other editorial missile of vituperation would be hurled at the head of the devoted victim by this immaculate journal. Nor would it stay its abuse till it had either annihilated the culprit, or, in the plenitude of its frenzy, had given utterance to some libel, to be "repudiated," swallowed again, and atoned for by contrition, and an open avowal of some "abject" and humiliating apology. Such are the conclusions to be drawn from the experience of the past.

A journal, to be respected, must be honest and just; to be efficient as a public censor it must be pure in its own principles; neither its praise nor its blame should be guided by whim or caprice; nor, whatever the prospects of private advantage, descend to indulgence in those very vices which it has condemned and so severely reprehended in others. With respect to the *Lancet*, it has lately received some wholesome lessons, from which, with prudence, it may derive some profitable instruction for its future guidance. "They will either teach it so to regulate its conduct as to be able to set the most malicious insinuations at defiance; or, if that be a last hope, they will teach it prudence enough not to attract the public attention to a character which will only pass without censure when it passes without observation."

Jan., 1848. JUNIUS REDIVIVUS.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Continued from page 266.)

CURRICULA OF THE HALL AND COLLEGE.—There is at the present time a negotiation between the Apothecaries' Society and the College of Surgeons, for the purpose of dovetailing the curriculum, and rendering it easier to the students, but I do not think that that was attended to formerly. It has never been done; but I apprehend that our regulations had been framed when the general practitioners adopted theirs: I mean the Apothecaries' Society did not consult with us upon the subject of our regulations. There have been some alterations since then, I believe. I do not think that any consultation was adopted. I have the regulations here, which require attendance on branches of medicine which I do not call strictly surgical. This portion says, "Of having been engaged in the acquirement of professional knowledge, for not less than four years, during which period they must have studied practical pharmacy for six months, and have attended one year on the practice of physic." Attendance on lectures appears afterwards; hospital practice is required. There is another regulation as to lectures. There is practical pharmacy for six months; one year on the practice of physic—that is to say, attendance on the practical parts at the hospital or a similar institution; "one course of lectures on the practice of physic, one on chemistry, one on materia medica, and one on midwifery, with practical instruction." No medical jurisprudence; no botany. With the exception of medical jurisprudence and botany, I believe we include all the subjects of examination or of required attendance at the Apothecaries' Hall. We do not institute any examination upon those subjects which I have now read. I consider that our charter empowers us to require attendance on the practice of medicine, and upon pharmacy, and upon midwifery. I suppose that, having the power to require certificates of attendance on such subjects, we have also the power to examine on such subjects. I do not consider that there would be any valid objection to our instituting such examinations, except that it would be making it an examination for general practitioners instead of for surgeons. I object to the formation of a college of general practitioners having the power to examine on all those subjects, and to require attendance on them; the objection to our actually instituting such examinations consists in the great importance that there is in the prosecution of surgery as a science, and that if you combine it with examinations and with other means of including the general practitioners as such in that institution, making it, in fact, a college in some way of general practitioners, you will in proportion deteriorate the institution as one for the promotion of scientific surgery.

MEMBERS NOT OF THE COLLEGE.—It is not now a college of general practitioners, but of surgeons. We have more than 12,000 members in our college who are practising generally; but they are only members of our college in as far as they are surgeons. I say "only members." Inasmuch as they have challenged examination before us. If they are not scientific men—if they are men not competent as surgeons—the fault lies with us.

MR. GREEN PUZZLED.—I do not consider that it would detract from the reputation of such men if it were known that they had been examined before us on other subjects than that of surgery; I do not know that it would rather enhance their reputation than otherwise. It is most essential I conceive that the character of the College of Surgeons should be kept as strictly as possible an institution for the promotion of surgery. We require attendance upon the practice of medicine, chemistry, and the other subjects which I have named, because we think that it is very proper that they should be acquainted with those as subsidiary branches of surgical science. It is very true that the propriety would be more strongly exhibited if we were to carry it to a still greater extent, and at once examine the candidates on those subjects, and prove their competency, and I should see no objection to appointing examiners for that purpose; but we had it fully before our eyes that those wants were already provided for, and we should as little think of examining them upon those subjects as we should upon theology, though we should think it very desirable that they should be acquainted with that subject too. Then the reason of our not examining them has been that we think that that work has been performed elsewhere. That being the case we require attendance upon the subjects which I have named, but on which subjects we do not examine, to show that we do not admit persons without the knowledge in question. There may be persons also who come up for a surgeon's diploma who are not intended for general practice. If a person brings his licence from the Apothecaries' Hall, and proves that he has undergone an examination there, it would be according to our regulations that he should produce certificates of attendance on the lectures which I have named; but certainly I very readily admit that it would be then unnecessary, in consequence of the examination of the Society of Apothecaries. When I say that I wish in a great measure to confine the College of Surgeons to the promotion of surgery as a science, I do not admit that our members are not a body of scientific men; I consider them scientific men, and that they are qualified to practise as surgeons. In my mind, the capacity for so doing is not withdrawn by the simple circumstance of a man's proving that he is competent to do something more. I am aware that the duties which often devolve upon the general practitioner occupy a very wide range, and extend, in fact, over the whole field of medical and surgical practice; but I presume that, if you wanted an operation performed, you would be more likely to select a hospital surgeon than you would a general practitioner or an apothecary from a village. But, considering that the practitioners living in remote districts are entirely relying upon their own resources, I think that it is of the utmost importance to the public that they should, as far as we can possibly make them so, be rendered competent, not only for what are called the ordinary exigencies of the profession, but also any accidents or emergencies which might arise. I would very gladly see a Sir Benjamin Brodie in every village in England. I am quite aware that, whatever the education may be, if we start upon a perfect equality with regard to their examination or education, some, in consequence of greater energy, greater industry, and greater ability, will necessarily take the first place.

ONE PORTAL FOR ALL MEDICAL PRACTITIONERS.—Still I do think it desirable that in the minimum qualification security should be had that the public are protected in having a competent body of medical practitioners; and I will add to that, that I think it would be very desirable that every one entering the profession should have a qualification in all the branches; that that should be provided for; I think the State has a right to require that, that for every one entering the profession, there should be, as it has been called, one portal. That, I apprehend, will relieve you of some trouble in examining me. I say that I think it desirable that there should be one portal, by which all parties might enter the profession of medicine; by this term I mean that all on entering the profession should be subjected to one and the same examination on anatomy, medicine, surgery, midwifery, and pharmacy. I have stated that it is my wish that there should be a Sir Benjamin Brodie in every village in the country; but I conceive it to be quite impossible that the course of education and the experience which have enabled Sir Benjamin Brodie to be what he is, could be realized in the case of each of the 13,000 or 14,000 gentlemen who compose at this moment the body of our own college, or of an equal number who are licensed under the

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Apothecaries' Act. If it then be impossible that we should produce in every village in the country such an experienced practitioner as Sir Benjamin Brodie, it follows, as a matter of course, that a large number of those who practise medicine in its different branches must cease their course of education at a lower point than that at which Sir Benjamin Brodie ceased his course of education. I think I have been misunderstood, if the inference has been drawn from what I have said, that there should be one system of education carried out, because the whole tenor of my examination has been favourable to the establishment of distinctions in the profession, and though I would let them go in at one gate, yet at the same time having entered they must take different directions, and some proceed much farther than others. My object in using the term "one portal" was, because it has been made a sort of technical term. It has been objected to, I know, by some who have given their opinions upon this subject, but I think that those who have objected to it have not considered that by adopting one initial examination for all it would remove very much the invidious character of those distinctions which the opposite party repudiate. Clearly we must be all of one profession, if we have begun alike; but, at the same time. I think it essential to the welfare of the profession that motives should be held out for higher attainments, and that those who aim at higher distinctions should undergo other examinations which should give assurance of their competency, and of their having proceeded farther in their studies. In point of fact I would wish the committee to understand, that while on the one hand I would desire that there should be one general and preliminary examination for all the members of our common profession, there should be a subsequent examination of the class of medical practitioners called physicians, another for the class called surgeons, and for the class called apothecaries or general practitioners I think it would be sufficient to subject them to the trial of the first examination. But I would require a second examination for the class of practitioners to be called physicians, and another distinct examination for those who are to be called surgeons. In my previous examination, referring to what I described as the system of instruction pursued in reference to the Apothecaries' Act of 1815, I stated that "the retrograde movement" which I have observed is owing to that "system which requires attendance upon a greater number of lectures, and attention to be given to a greater number of subjects, than formerly."

Cure for Cramming.—The teacher, however, whom the young man is expected and required to attend, in a great many instances examines orally, and he requires *vivâ voce* answers at the close of each examination in a great many instances. That is quite sufficient, if it be diligently applied, to exclude all necessity for what is technically termed "cramming," in reference to the examination either before the Apothecaries' Society or before the Royal College of Surgeons. Wherever, therefore, that system of catechetical instruction in the subjects of the professor's teaching be carried out, the practice to which I have adverted in my former examination necessarily ceases. I have stated that the young men shall prepare themselves for examination in the practice of medicine, materia medica, medical jurisprudence, botany, chemistry, and midwifery, and I have said that these are inconsistent with the devotion of their time to the study of surgery and anatomy; assuming that this must necessarily be the case, I do not see how it could be possible to omit any one of those studies in order to qualify him by a complete and generous education for the discharge of his duties to the poor as well as to the rich of his country.

Advantages and Disadvantages of Apprenticeship.—I would not affirm that as a matter of necessity young men intended for general practice must pursue some subjects which are inconsistent with the devotion of their time to the study of surgery and anatomy, yet I perceive that it is a very fair inference from what I have said. But much might be expected from improved methods of preparation, improved methods of instruction, and especially if the apprenticeship system were got rid of, from the devotion of time to study which otherwise I am afraid is often spent in idleness. All the leading surgeons of the present day, and all the leading surgeons of the generation before, were introduced originally into medical life under that system of apprenticeship; but the apprenticeships of surgeons at hospitals are very different apprenticeships to those which are adopted by general practitioners? The hospital apprentice is apprenticed at and to the hospital, and the whole of his time is occupied in education at the hospital. I am afraid that, as apprenticeships are generally conducted, the young men have not the advantages that one would desire in a home; but certainly, if apprenticeships were not in force, it would be most desirable that you should have collegiate institutions which should supply by their discipline the place of a home. I think one must admit that upon the whole the apprenticeship system does give a certain degree of moral control in the case of young men admitted under it to practice. So far, therefore, its effect is beneficial. It is also beneficial as introducing the young man to a knowledge of the preparation of medicines, without which he could very imperfectly exercise his future functions as a general practitioner; in that, as in other things, if the full intention of the apprenticeship were carried out, it would be a very beneficial provision. The great objection to the apprenticeship system rests upon the length of time, namely, five years, absorbed from the general education of the young man; but, in point of fact, the five years are usually not so absorbed from his general education. In St. Thomas's Hospital, with which I have been so long connected, the young men who attend my lectures, and the courses of lectures in that hospital, are in the large majority of cases young men who are nominally apprentices.

(To be continued.)

GOSSIP OF THE WEEK.

Apothecaries' Hall.—Gentlemen admitted members on Thursday, Jan. 13:—Thomas Carr Jackson, Clitheroe, Lancashire; William Henry Ackland, Bideford, Devon; Robert Rayner, Birstal, Yorkshire.

Medical Appointment.—William Thomson Barker, Esq., M.D., has been elected one of the physicians to the Dumfries and Galloway Royal Infirmary, in room of Dr. Robert D. M'Lellan, deceased.

Government Gratuity to the Widow of the late Mr. Walker.—We have great satisfaction in announcing that the Government have determined upon granting a gratuity of £70 to the widow of the late Mr. James Walker, surgeon, of this city, who, it will be remembered, died in the early part of the last year of fever, taken in the discharge of his duty as medical officer of the London-road district. We understand that Government has also granted similar gratuities in some cases at Liverpool and Chester. —*Manchester Guardian.*

The Hunterian Oration.—Mr. R. D. Grainger, F.R.S., the lecturer on Physiology at St. Thomas's Hospital, has been appointed by the council of the Royal College of Surgeons to deliver the annual oration on the 14th of February next.

Munificent Bequests.—The late Robert Suple, Esq., of Clifton, has, by his will, bequeathed the following sums to the undermentioned charities of Bristol city:—To the Bristol Infirmary (for general purposes), £500; to the Bristol Infirmary—to be invested, and the dividends to be applied towards providing a fund for the bestowment by the committee of two annual prizes to medical students to be educated at that institution, for the encouragement of medical and surgical science, £1000.

A service of plate, valued at 100 guineas, has been presented to Mr. Cock, surgeon to Guy's Hospital, by his friends and pupils.

Small Debts Court.—At Wellington, Somerset, on Tuesday, the 11th, several cases were heard before the judge of this court, J. M. Carrow, Esq. The following is the only one worthy of notice:—Randolph v. Ewans.—This was an action to recover £4. 2s. for medicine and attendance on a boy twelve years of age, who met with an accident in the employ of the defendant. It appeared in evidence that the boy was conveyed to the defendant's house, and taken from thence to a neighbour's next day, and that the plaintiff continued his services until the boy was restored. On the part of the defendant it was shown he did not send for the plaintiff; that he was not his usual medical adviser; and that he had told him he would not be answerable for the expenses, but must be paid by the parish. His honour, in giving his decision, considered the defendant had, by a conversation with the plaintiff, made himself liable for the time the boy was kept in his house, but not longer, and gave a verdict for 17s. 6d. only.

Dispensary for Diseases of the Ear.—The thirty-first annual general meeting of the governors, friends, and supporters of this institution, was held on Tuesday last at the dispensary in Dean-street, Soho; Mr. Masterman, M.P., the treasurer, presided. The meeting was more numerously attended than on former occasions. The report, which spoke favourably of the progress of the dispensary, and set forth a great number of cases of patients of the poorer classes relieved, having been adopted, resolutions expressing the grateful feelings of the governors and subscribers towards her Majesty the Queen, the Queen Dowager, Prince Albert, the Duke of Cambridge, and other members of the Royal Family, for their liberal support, were carried *nem. con.* Other resolutions connected with the details of the institution were then passed, and, a vote of thanks to the chairman having been passed, the meetins broke up.

The Cholera.—A letter from St. Petersburgh, of the 3rd inst., represents the cholera as being much less malignant than it was in 1831 and 1832, and as becoming weaker in its attacks as it advances northwards. It was expected at St. Petersburgh, and every preparation was made to meet it. At Moscow, from the 5th to the 11th ult., there were 119 cases, and 54 deaths. In the eastern portion of the empire, the Governments of Kasan and Orembourg have suffered most. The Cossacks of the Oural have also been great sufferers. After acting for some time upon the above two provinces, the malady has extended to the north and west, and gained the centre, in which last portion of the empire Toula has suffered the most, having had 782 cases and 246 deaths. At Kalouga there have been 78 cases and 37 deaths. At this time the disease is raging in the western provinces bordering upon Turkey and Galicia. It makes the same eccentric movements as in 1831. Thus, having once entirely ceased at Orel about the middle of November, it has again made its appearance there with fatal effects. Hitherto the eastern quarters have, next to the Caucasus, suffered the most cruelly. It is said that the Russian army in the Caucasus has sustained numerous losses, and even the mountaineers themselves have not been spared.

Suicide of a Surgeon.—On Tuesday Mr. Wakley held an inquest on the body of Mr. Henry W. Boxhall, surgeon, aged thirty, late of 74, Upper Seymour-street, Euston-square.—Mr. Aldridge, surgeon, of Upper Seymour-street, said he had known deceased five or six years. He was formerly in practice in Melton-street, Euston-square, subsequently in the Mornington-road, and had resided a few months at Upper Seymour-street. On Friday evening a young woman, with whom deceased lived, asked him to come and see Mr. Boxhall, as he appeared ill. Next day he went to see him, and on entering

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his apartment found him standing near the fireplace with his throat cut. On seeing witness, he exclaimed, "Ah, it's no use, I have done it effectually." Witness went towards him, but deceased ran round the table, and struggled with him violently, and threw witness over a box. The blood was spouting profusely all this time from his neck. It was some minutes before witness could secure him. He then tried to stop the bleeding by pressure on the vessels of the neck, and called for assistance. Deceased still struggled violently, and called out for prussic acid, to finish him. He struggled violently to the last to prevent any attempt to save his life, and died in about a quarter of an hour from the time witness first saw him. He had made a cut with a razor, which lay on the carpet, on the left side, dividing the carotid artery, and all the larger vessels. Deceased was of a nervous temperament, and drank at times. He was very strange in his manner, and had told witness that he suffered from *delirium tremens*.—The jury returned a verdict of "Insanity."

OBITUARY.—On the 4th instant, Dr. Sutherland, of Bootle, Cumberland.—On board H.M.S. Espeigle, at Shanghaie, China, 16th October, J. Park, Esq. surgeon, R.N.—At Hong-Kong, October 3, David Davidson, M.D., assistant-surgeon, R.N. — On the 18th ult., A. Jubb, Esq., F.R.C.S., senior surgeon to the Halifax Infirmary.—On the 20th ult., at Mountmellick, of fever, Thomas Hipwell, Esq., surgeon.—On the 24th ult., of fever, Charles Donnellan, M.D., medical attendant to the Armadown Dispensary. — On the 24th ult., of fever, Francis Bodkin, Esq., apothecary to the Clifden Poorhouse.—On the 25th ult., of fever, E. Lambert, M.D., F.R.C.S.I., at Oranmore. — On the 15th instant, at Norwood, Lewis Leese, Esq., M.D., aged 82.—11th inst., at Dumfries, in his 44th year, R. D. M'Lellan, Esq., M.D., one of the physicians of the Dumfries and Galloway Royal Infirmary.—On the 7th inst., Dr. Finch, F.R.M.C.S., F.L.S., and proprietor of Laverstock-house Asylum, Salisbury.—On the 13th inst., at Brecon, in the 66th year of his age, Thomas Batt, Esq., late surgeon of the Royal Fusiliers, and coroner for the county of Brecon. —At Florence, on the 14th ult., Sir James Annesley, late president of the Medical Board at Madras.

MORTALITY TABLE.

For the Week ending Saturday, Jan. 15, 1847.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1457	1107
SPECIFIED CAUSES...	1453	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	388	184
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	51	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	180	175
Diseases of the Lungs, and of the other Organs of Respiration	346	225
Diseases of the Heart and Blood-vessels.....	50	39
Diseases of the Stomach, Liver, and other organs of Digestion	65	62
Diseases of the Kidneys, &c.	13	9
Childbirth, Diseases of the Uterus, &c	12	13
Rheumatism, Diseases of the Bones, Joints, &c. ...	10	8
Diseases of the Skin, Cellular Tissue, &c.	0	1
Old Age.....		
Violence, Privation, Cold, and Intemperance.....	32	31

DISCOURSES ON THE HEART, BY WARDROP.

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TO CORRESPONDENTS.

"Nemesis."—Dr. Maudl's plan for distinguishing real from apparent death is to apply caustic. On dead tissues a blister is never raised by the application of heat; but this effect is always produced on the skin so long as life is preserved. We do not know of many experiments instituted, and it yet remains to be proved if the plan recommended will be of actual service.

"Truth-seeker."—Egypt is rarely free from plague, which is said to be produced from the following causes:—The filthy state of the villages—the decomposition of vegetable and animal substances during the hot weather — the badly constructed huts, which are very damp and poorly ventilated — the use of brackish water, insufficient and bad food, and physical and moral misery — the want of proper drainage and free ventilation in the streets — the evaporation from the salt marshes of the Lake Mareotis—and the mode of burial adopted by the Egyptians.

"T. E. B., Belfast."—The numbers required for the completion of the volume may be had on application to the office, or to any respectable bookseller.

"Philo."—The motives are good which dictated the letter, but we must decline its publication.

"Lector."—The Lectures of Dr. Willshire, Physician to the Royal Infirmary for Children, may be consulted with advantage.

"Amicus."—Müller's "splendid work" is publishing in the *Pharmaceutical Times*, and is illustrated by beautiful engravings.

"Spes."—The diploma referred to will enable the possessor to practise surgery in the British possessions, either in the East or West Indies.

"Mr. Proben."—The observations are correctly made, and the plan adopted is that which has been recommended by the best surgical authorities.

"A Metropolitan Physician."—The rapid absorption and fatality of the poison, when applied to the cuticle, forms one of the unsolved problems of medicine.

"Chemicus."—Organic substances can be preserved for a considerable time. M. Gannal's method consists in injecting a solution of alum with some preparation of arsenic.

"Alpha."—The papers are left at our office, and may be obtained on application. We do not engage, however, to preserve the manuscripts of our correspondents.

"Mr. Joshua Benton."—We shall not be able to find room for the case; it hardly possesses sufficient points of interest for medical readers.

"Ajax."—We are unable to give any information on the subject.

"Reformer."—We do not know that the Queen is about to grant a Charter of Incorporation for General Practitioners. We think it not unlikely, that in a short time this desirable circumstance will be accomplished.

"One Afloat."—The letter should be sent to "The Army and Navy Gazette."

"Dr. R. G. Daunt" makes the following remarks on the trial of E. T. Taylor, at Graham's Town, Cape of Good Hope, for *mala praxis*:—"The criminal in question, E. T. Taylor, I well recollect as an impudent and ignorant quack, who, not content with his lawful gains as a druggist, boldly announced himself as a surgeon in the public prints. During my residence in Graham's Town, in 1842, I called the attention of Government to this man, but had great reason to complain of the indifference shown by the then authorities to my representations; this is so often the case on such occasions, where no party purposes are to be served by an honest discharge of duty, that we may well wonder with Saint John Chrysostom, 'An fieri possit, ut aliquis ex rectoribus sit salvus.' This trafficker in human life has now, however, met his deserts, and henceforward, I trust, better fortune will attend those regularly educated members of the profession who may visit this rich and interesting colony. The prisoner impudently and wickedly endeavours to throw a part of his guilt on the late Mr. Craig, who I know to have been far too honourable a man to have lent his authority to such a transaction, and too mindful of his rank in life to have allowed this man to have been on terms of familiar intimacy with him. How the prisoner should have been able to bring forward wealthy merchants as witnesses to his good conduct, those only can understand who are acquainted with the singular social system of the English colonies."

"A. Z. M."—The case is one which any properly-educated practitioner would be enabled to treat successfully.

"A Constant Subscriber (Student)."—The names of the successful candidates have been published. We have decided not to award any during this year.

"X. Y X."—The two names are applied to the one acid.

"Mungo Park."—Our correspondent has mistaken our intention. We wish to see justice done to all parties.

"A Medical Officer" puts the following case:—"John Jones is destitute; he has nothing to eat; he is perishing with hunger; he applies to the relieving-officer, who gives him a bread-loaf. The board meets the next day, and refuses to allow the value of the bread-loaf in the relieving-officer's account, and orders him not to give John Jones any more bread. The man dies of hunger. What should we think of the coroner and his jury if they were to say that the relieving-officer was 'inhuman' and 'unfit for his office,' because, after having already been induced to give away one bread-loaf at his own cost, he abstained from continuing to bear all the weight of the man's destitution on his own shoulders? And yet a similar thing has just been done in the case of a medical officer."

"A Really Fair Brother" writes us, in reference to the application of chloroform in typhus fever, as used at the Bristol Hospital, as follows:—"I am not inclined to enter into or argue the point, either in principle or practice, with Dr. Fairbrother, though I cannot refrain from saying that I think his case proves simply either that the explanation of the action of ether and chloroform, as far as they are connected with the production of congestion, are false and useless, chloroform being a specific for almost anything, or else that the human frame, more particularly hospital patients, will tolerate almost any amount of experiment without palpably dying from the effects.

"Mr. Gradwell, Kirkham."—The General Medical Annuity Fund will suit our correspondent's wishes. Apply to Mr. Daniell, Newport Pagnel.

"A Constant Reader."—The wager had better be decided by actual experiment, and the folly of the proposition concerning chloroform and insensibility will at once be seen. Chloroform will keep if preserved in closely-stopped phials.

Letters and communications have also been received from Nemesis; Truth-seeker; T. E. B., Belfast; Philo; Lector; Amicus; Spes; Mr. Proben; A Metropolitan Physician; Chemicus; Alpha; Mr. Joshua Benton; One Afloat; Ajax; Medico-Chirurgus; Reformer; M. A., Salisbury; Dr. R. G. Daunt; A. Z. M.; A Constant Subscriber (Student); X. Y. X.; Mungo Park; Q. P. B., Rugby; A Medical Officer; A Really Fair Brother; Mr. Gradwell, Kirkham; A Constant Reader; Dr. King, Eltham; Mr. M'Laren, Bedlington; Mr. Hart, Harwich; Dr. Hingston, Plymouth; Mr. Chubb, Torpoint; Mr. Sabben, Portsmouth; Dr. Burton, Walsall; Mr. Raynes, Bantry; Mr. Tomkinson, Cheadle; Mr. Barry, Cahireiveen; Mr. Hore, Shoreham; Mr. Burman, Stratford-on-Avon; Dr. Willis, Market Deeping; Mr. Leigh, Liverpool; Mr. Small, Boston; Mr. Nicholls, Basingstoke; Mr. Douglas, Bradford; Mr. Tarson, Montgomery; Mr. Bernard, Weston-super-Mare; Dr. James, Kington; Mr. Rendell, Westbury-on-Trym; Dr. Alcock, New Ross; Mr. Thomas, Hobspoint; Mr. Bickersteth, Liverpool; Dr. Walker, Blackheath; Mr. Cryar, Boyle; Dr. Wylenants, Shepton Mallett; Mr. Hedley, Bedford; Mr. Wilks, Ashford; Dr. Wake, Southwold; Dr. Williams, Castletown; Dr. Burnett, Alton; Dr. Stephens, Ballyshannon; Dr. Jones, Ross; Mr. Pullan, Epworth; Dr. Lukis, Guernsey; Mr. Berks, Manchester; Dr. Barker, Dumfries; Mr. Hastings, Stokenchurch; Dr. Bardsley, Manchester; Mr. Jobson, Bishop's Auckland; Mr. Davies, Gateshead; Mr. Piper, Darlington; Mr. Gordon, Port Glasgow; Dr. Anderson, Rifle Brigade, &c.

ERRATA.—Page 253, col. 1, line 31 from the top, read *on*, instead of *in*; line 51 from the top, instead of *nay*, *from*, read *may form*. Col. 2, line 20 from the top, instead of *deviation*, read *duration*; line 35, instead of *Thaumat ropes*, read *Thaumatropes*; line 40, instead of *Himé*, read *Aimé*; col. 3, line 3 from the top, instead of *a*, read *of*.

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No. 435. **SUMMARY.** JAN. 29.

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ORIGINAL LECTURES.

LECTURES ON GENERAL PATHOLOGY,

DELIVERED TO THE

FACULTY OF MEDICINE

DURING THE PRESENT YEAR,

By PROFESSOR ANDRAL.

Reported for the *Medical Times* by D. M'CARTHY, M.D. Paris, &c.

SECOND SERIES. CHAPTER IV.

SIGNS FURNISHED BY THE RESPIRATORY ORGANS.

The manner in which respiration is accomplished furnishes occasionally a clue to the diagnosis of disease; for instance, costal respiration is observed when the contractions of the diaphragm are attended with pain; and, on the contrary, the respiration is called abdominal when respiration is almost entirely performed with the assistance of the movements of the diaphragm, the elevation of the ribs being partial: when a stitch exists on one side of the chest, that side remains immoveable during respiration.

In the healthy state, from eighteen to twenty-four inspirations may be counted in one minute. This number seldom rises to twenty-eight, or descends to twelve. But, in disease, respiration may be much accelerated or slackened. Thus, in the meningitis of children, and in some cases of hysteria, it often descends below the average. When the number of inspirations observed in one minute is above thirty, a morbid state of the system may be asserted to exist. They may rise as high as eighty, and even be more frequent than arterial pulsation in the same subject. Simple febrile excitement accelerates respiration, but never increases the number of inspirations to more than thirty-two in one minute. If thirty-six inspirations be counted, disease of the heart or respiratory organs is exceedingly probable; if more than thirty-six, it is certain that some disorder of the kind is present.

All the causes which interfere with the free introduction of air into the chest accelerate respiration, whether the obstacle be seated in the larynx, trachea, bronchi, or in the lungs. Thus, in acute pneumonia, the respiration usually rises to thirty-two or thirty-eight; if it attains fifty the case is almost invariably fatal. This happens in the adult; but in children under two years of age affected with pneumonia you will often find sixty, and even eighty, inspirations in one minute. In consumption, the respiration becomes greatly accelerated only in the last stage of the disorder; it frequently averages thirty. When, in cases of phthisis, the respiration becomes suddenly very much quickened, one of three occurrences is to be feared—viz., pneumonia, a rapidly-forming pleuritic effusion, or pneumothorax. In pleuritis, acceleration of the respiration may be due either to the intensity of the pain in the side or to the abundance of the effusion within the chest. When the morbid secretion has taken place in both pleural cavities, the frequency of respiration is greatly increased; but if, on the contrary, it has formed slowly, and only in one side, although very abundant, it causes only a very trifling increase of the number of inspirations, particularly if the patient be observed in repose. Abundant effusion in the cavity of the abdomen often augments the frequency of respiration, and the same is noticed in most diseases of the heart and of the organs of circulation. The nervous system has considerable influence over the phenomena which now occupy us; observe, for instance, the effects of mental emotion upon the respiration. In women, we should not give quite the same prognostic value to increased frequency of respiration as in men: in the female, a simply nervous disturbance, as in hysteria, may raise the respiration to sixty—a fact which we do not meet with in the male sex.

Respiration may not only be modified in its frequency, but also in its depth. The inspirations may be shorter or deeper, according to the state of the lungs; for instance, in pulmonary emphysema the respiration seems to be very deep—we say seems, because the depth is in these cases more apparent than real; the chest is elevated by a strong effort of the patient,—it is not, properly speaking, dilated, but the energy of the effort would easily lead an inattentive observer into error.

The regular succession of the respiratory movements may also be modified by disease; thus, in the convulsive period of acute meningitis, particularly in children, respiration becomes irregular and even intermittent. The passage of the air through the respiratory organs is silent during health, but in disease it may be attended with various sounds, generated in the larynx, trachea, or bronchi. In the larynx we may hear sounds during inspiration or during expiration; the rhonchus produced by œdema glottidis accompanies expiration. These sounds are the result of a diminution in the diameter of the larynx, from hyperæmia, swelling of the vocal chords, false membranes, tumours, or merely spasmodic contraction. Ulcers of the trachea, particularly if their edges be fungous, and if they are seated near the bifurcation, often give rise to morbid sounds during the passage of air through the tube; compression of the trachea by tumours, aneurism of the arch of the aorta for instance, has the same effect. Further, we may hear, without applying the ear to the thoracic walls, morbid sounds originating in the bronchi, and also friction taking place in the pleura.

When the respiration is modified in these several manners, the patient experiences a sort of uneasiness, which has received the name of dyspnœa—a symptom towards which I must now call your attention.

Dyspnœa has several degrees; it may exist only in motion, or even in ascending motion, or it may also distress the patient when he is in a state of perfect repose; it then bears the name of orthopnœa. When dyspnœa is violent, the inspiratory muscles being insufficient for the purpose of dilating the chest, many other muscles lend their synergetic assistance, even those of the face, the contractions of which may enlighten the diagnosis, in giving to the patient a particular physiognomy, characteristic of the disease; thus the movements of the alæ of the nose in the dyspnœa caused by pneumonia are most remarkable.

This symptom, being common to most diseases of the respiratory organs, cannot assist in distinguishing them from each other. We meet with it in diseases of the larynx, and it is always in proportion with the degree of obstruction existing within the air-passages. When tumours press upon the trachea, as in some aortic aneurisms, the oppression is occasionally excessive. In diseases of the bronchi we find dyspnœa again; for instance, in acute capillary bronchitis it is often more intense than in pneumonia; and in chronic capillary bronchitis it may become extreme with any temporary exacerbation of the malady. Hypersecretion from the bronchial mucous membrane also occasions much oppression, whether it occurs in acute bronchitis, or at the close of a certain number of acute or chronic disorders. Let us add that this hypersecretion may result from general debility; and, therefore, in the treatment of disease in general we should carefully abstain from lowering the vital powers of the patient beyond a certain point, as the production of this accident might thereby be facilitated. In pneumonia, dyspnœa always exists; it may be slight, as in that form of inflammation of the lungs which often intervenes during the course of typhoid fever, but may also acquire a considerable degree of intensity. Consumption causes an amount of dyspnœa, which is always proportioned to three conditions, viz., the number of the tubercles, the pulmonary alterations by which they are surrounded, and the rapidity of evolution of the morbid deposit. Sometimes, long before any permanent cough is observed, the patients complain of a sense of oppression; in most cases, on the contrary, the dyspnœa is very slight during the incipient stage of phthisis; but if the tubercles are rapidly formed, as in acute phthisis, the oppression is excessively considerable. Pulmonary emphysema is not necessarily accompanied by dyspnœa, except in its advanced stage. In a very large number of cases, patients suffer from oppression only at very distant intervals, these intermittent attacks of asthma being referrible to periodical attacks of bronchitis. But when emphysema has lasted some time, and acquired a considerable development within the chest, oppression becomes intense and continuous—no fresh attacks of bronchitis being necessary for its appearance. The countenance of the patient is swollen and livid, the lips take a purple hue, and the physiognomy resembles that of persons suffering from disease of the heart. In pulmonary apoplexy, whether idiopathic or depending upon an alteration of the central organ of circulation, the degree of dyspnœa depends entirely upon the intensity of the apoplexy. In diseases of the pleura, dyspnœa may either be the result of the pain, by which the respiratory movements are im-

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peded, or depend upon the pressure exercised upon the lung by effusions within the thoracic cavity. The former cause is more frequently productive of oppression than the latter; indeed, in chronic pleuritis considerable secretion may have accumulated within the chest without any perceptible difficulty of breathing. But when the effusion has taken place very rapidly, when it is extremely abundant, and not only causes dulness on percussion of the posterior parts of the chest, but also of its anterior region, or when the morbid deposits have been formed on both sides, then oppression, more or less considerable, never fails to appear. Simple pleurodynia may occasion extreme oppression. Diseases of the heart may be said, in general, to be accompanied with dyspnœa—a remark which allows, however, numerous exceptions; for instance, valvular insufficiency of the aorta seldom causes any difficulty of breathing. In acute rheumatism we sometimes hear at the first bruit a murmur indicative of endocarditis, and still no oppression is complained of. But when disease of the heart causes disturbance of the pulmonary circulation dyspnœa is a constant symptom. We should also add that towards the close of diseases of this nature the bronchial secretion is usually much increased, and œdema of the lung supervenes,—circumstances by which the tendency to dyspnœa is much augmented: ascitis, abdominal tumours, or tumours developed within the thorax, may also become mechanical causes of oppression. In plethora and in anemia we find a certain amount of dyspnœa, and in nervous subjects it may be produced merely by emotion. In hysteria we meet with it as a very ordinary symptom. We must, however, distinguish two sorts of nervous dyspnœa: in one it is caused by a disturbance of the cerebral influence over the respiratory organs; in the other by a disease affecting the par vagum, and through that nerve the lung, to which the pneumogastric is partly distributed. Nervous dyspnœa is often very slight, occasionally violent, and frequently intermittent. We cannot, from the results of our own experience, doubt the existence of a purely nervous form of asthma, the attacks of which, often repeated, bring on readily the pulmonary alterations characteristic of emphysema.

Alterations of the voice are observed in disease, and may assist in its diagnosis. The causes of its changes may be seated above or below the larynx; we are acquainted with the special modification produced in the voice by perforations of the palate or enlargement of the tonsils; a slight alteration of the vocal chords change its tone, and bronchial or pulmonary affections also modify it. Further, we find in nervous diseases the voice changed or suppressed, whether the malady occupy the nervous centres, or merely consist in a pressure exercised upon the course of the laryngeal nerves by some tumour or morbid production. We may say that all the causes which diminish the volume of the column of air to be expelled through the larynx during expiration modify or weaken the voice, a fact often observed in the very earliest stages of pulmonary consumption. In croup we usually find the voice suppressed. The larnyx may also be affected with special neurosis, a sort of chorea confined to its muscles, the chief symptoms of which is a sort of barking or involuntary emission of voice.

Cough is a symptom of great importance; we find it in diseases exclusively limited to the respiratory organs, and also in others which invade the chest only in a secondary manner. With regard to the former, we find cough with special characters in croup: it is not necessary to expatiate upon its barking sound. You are also acquainted with its tone in hooping-cough, in which a crowing inspiration is followed by several successive attempts at expiration. In bronchitis cough is also present—dry at first, loose in the second stage, and often more troublesome than in inflammation of the lung. Coughs do not always precede the formation of tubercular matter in the chest. During the first periods of phthisis, patients are subject to frequent coughs, which at last become permanent. In some cases the permanent cough is observed from the beginning. It is a prevalent opinion in the unprofessional public, that dry coughs are more characteristic of incipient phthisis than coughs attended with expectoration. We need hardly add that this is a mistake. A sense of heat and tickling in the throat is frequently complained of by patients, and some are also affected at the same time with a deep-seated pain within the chest. In pleuritis, cough is often subordinate to the existence of pain in the side: it is always a dry cough. Pulmonary emphysema is productive of a sort of cough which has the characters of that of bronchitis. We said that this symptom might be noticed also in diseases, one only of the elements of which is to be sought for in the respiratory organs. Thus, amongst pyrexiæ, we find that measles are always attended with more or less cough, which sometimes precedes, and always accompanies, the prodromic fever, persists throughout the eruption, and usually decreases after its cessation. If it should last any length of time after the eruptive fever, it calls for some attention on the part of the medical practitioner, as it may be the starting-point of emphysema or pulmonary consumption. On auscultation of the chest, in the bronchitis of measles, seldom are any rhonchi detected; in the bronchitis of typhoid fever, on the contrary, sonorous and sibilous râles may be almost always heard in the chest. Sympathetic coughs have also been often noticed, expressive of the participation of the nervous system of the lungs to sufferings of the liver or stomach. Taenia is sometimes productive of a very troublesome nervous cough, which ceases when the worm has been expelled. In some hysterical patients we occasionally find an obstinate cough, merely produced by nervous disturbance.

Expectorated substances may vary in their nature, and in their origin. We will enumerate the various matters which may thus be rejected. Mucus, always arising from the respiratory organs; blood, which may come from the mucous membrane of the bronchi, from the pulmonary parenchyma, as in pneumonia, phthisis, pulmonary apoplexy, or gangrene of the lung; from an aneurism of the aorta, and in this latter case the blood is not always rejected at once in large quantities, but may for a certain number of days be expectorated in filaments, mixed with bronchial mucus. When the blood expelled from the lungs is rejected soon after extravasation, it is scarlet, fluid, and spumous; but, if it has remained in the bronchi some time after exhalation, it may be dark and coagulated. A portion of this blood may also be swallowed, and afterwards vomited—a fact which may lead to some doubt as to its origin. Pus is frequently found in the expectoration; it may have been generated on the mucous surface of the bronchi, or in an accidental cavity formed in the lung after consumption or gangrene. An abscess collecting in the pleura may also be evacuated into the bronchi, and discharged by expectoration. The abscess may be seated in the neighbourhood of the respiratory organs, in the bronchial ganglions for instance, or in a distant viscus, the liver or kidney (Rayer). False membranes are sometimes expectorated. They are mostly formed in the larynx, but may have been secreted in the trachea or bronchi. Tubercular matter, originating in the lungs or in the bronchial glands, particularly in children, should not be omitted in the enumeration of expectorated substances. Melanic matter has also been found, but more frequently a dark matter, identical with charcoal in a state of extreme division, and only in persons exposed to the inhalation of this substance. Let us also mention cancerous matter; hydatids, more generally coming from the liver than from the lung; cretaceous calculi; the residue of cured tubercles; remains of pulmonary or bronchial tissue, detached in tubercular or gangrenous cavities; such are the various substances found in the expectoration. In one instance, in which the stomach communicated with the spleen and the lungs, we met with the contents of the stomach in the expelled matter.

A COURSE
OF
LECTURES ON SURGERY.
BY
SAMUEL COOPER, Esq., F.R.S.,

Professor of Surgery to University College, London; Consulting Surgeon to London University Hospital, &c.

Lecture XXIII.

Gentlemen,—The general definition and divisions of the various descriptions of wounds was the subject of our first lecture. We considered the general characteristics of incised, punctured, and contused wounds, as well as those which are produced by the bites or stings of venemous insects or reptiles. The first indication in the treatment of an incised wound is obviously to stop the hemorrhage. When there is no hemorrhage, and the wound is under a certain size, the best thing that can be done is, at once to close the wound by bringing its edges together; but after a large wound has been received, and there are no large bloodvessels opened, and the blood does not flow very freely, but only oozes, you should let the wound remain open a little while in this dripping, oozing state, because clotted blood is a disadvantage to the wound, separating the surfaces, and may be regarded for many purposes in the light of an extraneous body. The more free from clotted blood, therefore, you can keep the wound the greater chance do you give it to heal by the first intention. Hemorrhage being the first thing to which you are called to attend, it is important that you should be well furnished with good scientific as well as practical knowledge. In its full extent, hemorrhage is a wide subject, but all its divisions do not come under our notice in course of surgical lectures. It may take place from the heart, arteries, veins, and capillary vessels, arising from solution of continuity occasioned by incised wounds, puncture, laceration, &c.; and these lesions come of course within the limits of surgery. It may also follow obstructions of the natural channels for the return of venous blood to the heart, or the obstacle may be in the artery; and these cases again come under the notice of the surgeon. Other causes of hemorrhage come more properly within the province of the physician, as what is called *passive* hemorrhage, and also those which arise out of particular states of the blood, as in scurvy, typhoid fever, and debility. A division of wounds is also made into external and internal, and into active and passive; these two divisions exhaust the subject, and will appear more prominently as we proceed. You all know that when an artery is incised, blood issues *per saltum*, that is, not in a continuous stream, but in successive jets; while from the veins it flows in a regular, even discharge; the colour of the blood is also different in the two cases, arterial blood being of a scarlet, while that from the veins is darker. The points respecting the colour of blood is of practical utility, and should, therefore, be remembered; it is that the blood at the end nearest the centre of circulation is of a lighter (?) colour than at the remote extremity. I have seen great mistakes made, which a knowledge of this simple fact would have obviated.

I have, in this hospital, seen the case of a boy who had been cut deeply in the hinder part of his leg, the posterior tibial artery having been divided. When he was brought in, the house-surgeon proceeded in the usual way, and thought he had done all that was right; hemorrhage, however, came on again and again, and was stopped only to break out afresh, while the patient was fast sinking; all this while it was not suspected where the blood really came from. Upon further search it was found necessary to tie the popliteal or femoral artery, and when this was taken up the case succeeded very well. Had the house-surgeon known or remarked this particular distinction of colour, the mistake could hardly have happened. To understand the scientific method of stopping hemorrhage from arteries, you should know the powers by which nature accomplishes

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the same object, and should also regard their structure. They are supplied not only with small arteries and veins, but also with absorbents and nerves; and in these respects the organization is analogous to that of other soft parts of the body, and they are liable to every change to which living parts are subject in common; upon injury they inflame, suppurate, or mortify in the same manner as a gland or a muscle. They have three cases. The first or internal coat is very vascular, close in texture, and will bear great pressure, applied longitudinally, but any substance pressing it round will easily cut it through. The fibrous coat is elastic, and consists in a number of layers: it is the thickest of the coats. The external coat is strong and dense: it is the last to yield to disease. All of them are very susceptible of injury, and you will not be doing your duty unless everything concerning them which you think necessary to be done is performed with the greatest gentleness. Inflammation, ulceration, and sloughing are the common consequences of rough usage of these organs. It was from the roughness with which they were handled that formerly thirty cases out of forty used to terminate unfortunately. A sounder knowledge of their susceptibilities has led to a better way of treating them.

There are two kinds of hemorrhage, primary and secondary: the former is that which takes place at the time the wound is inflicted; the latter at a subsequent period. When a large artery is completely divided, an impetuous flow of blood takes place, and the artery is suddenly retracted within its sheath, and its extremity contracts at its orifice. The sheath itself does not contract, but the artery itself is drawn by its own elasticity into its sheath, and its end becomes smaller. The cellular tissue which connects the two surfaces of the artery and its sheath becomes drawn irregularly and blood is effused in it, and, passing through that canal of the sheath which has been formed by the retraction of the artery, is allowed to pass out a little at a time, or is extravasated in the cellular tissue, as the wound is more or less open. A clot is thus formed at the end of the artery, projecting beyond the end of the sheath, and coagulating till it fills it up completely, from the circumference to the centre. By the effusion of blood into the surrounding cellular tissue, and between the artery and its sheath, and also in consequence of the diminution in the velocity of the circulation caused by the bleeding, the coagulum is formed and the hemorrhage stopped. This, which is called the external clot, is the first natural impediment to the flow of blood from the end of an artery. The mouth of the artery being no longer pervious, and having no collateral branch very near it, the blood within it is at rest, and coagulates, forming a smaller conical-shaped clot, which neither fills up the canal of the artery nor adheres to its sides, except by a small portion of the circumference of its case. This is called the *internal clot*. Of course when a ligature is applied there is no external clot. When nature suppresses the hemorrhage there will be no internal clot formed. When there is a collateral artery, branching from the extremity of the large artery, the internal clot will not form, because the stream in motion in the adjacent artery keeps the blood in the wounded one from stagnating, and so forming the clot. On this fact depends the maxim universally taught in the schools of this country: never to apply a ligature to any collateral branch, because when there is no internal clot there is one protection the less against the return of hemorrhage—the external clot being the first protection, the internal the second. They are both, however, temporary in their office. I do not consider that you are *sure* to have hemorrhage if a ligature is so applied. I know cases where such ligatures have been applied and no secondary hemorrhage has followed, but I always thought that a great risk was run.

I have said that the protection of the clots was but of temporary duration; the cut extremity of the artery inflames, and the vasa vasorum pour out fibrine, which the external coagulum prevents escaping. This fibrine fills up the extremity of the artery between the internal and external coagula of blood, and becomes intermingled with them, or, at least, adherent to them, and unites firmly to the internal coat of the artery. This is the great security for the permanent suppression of hemorrhage; but while fibrine is thus forming, the extremity of the artery is further secured by its gradual contraction; and by effusion of fibrine between its tunics, and in the cellular tissue surrounding it, the canal and mouth of the artery become obliterated, and blended with the surrounding parts. When the wound in the skin is not healed by the first intention, coagulating lymph exudes, covering the end of the vessel, and separating it from the cavity of the wound. The end of the artery up to its first collateral branch becomes gradually smaller till the cavity disappears. The external clot is absorbed in a few days.

If the wound be a puncture, or partially divided, a curious circumstance in the process of nature takes place, altering the relative position of the artery and its sheath. Blood is first effused in the cellular tissue, between the artery and sheath, both above and below the wounded part. On examination, a short time after the hemorrhage has ceased, a stratum of coagulated blood is found between the artery and sheath, thicker just over the wounded part than elsewhere. The space between the artery and sheath being filled with blood, and the latter part distended, the situation of the puncture in it and the artery are altered, and the coagulum, being confined by the sheath over the puncture in the artery, stops the hemorrhage. But the permanent prevention of bleeding depends on the reparation, or, perhaps, the obliteration, of the channel; in fact, if the channel is divided beyond a certain extent, obliteration is the only course open to you. Hemorrhage depends much on the possession of a sheath. Arteries destitute of a sheath, such as those of the forearm and leg, give great trouble to the surgeon in endeavouring to stop hemorrhage. One circumstance favourable to the suppression of bleeding is the tendency of the circulation to diminish in force and velocity after a certain quantity of blood has been lost. The blood then proceeds very languidly, and acquires also an increased tendency to coagulate.

ORIGINAL CONTRIBUTIONS.

CLINICAL REMARKS ON CASES OCCURRING IN OBSTETRIC PRACTICE.

By CHARLES WALLER, M.D.,
Physician-Accoucheur to St. Thomas's Hospital.

ON PLACENTA PRÆVIA.

(Continued from p. 257.)

Case 29.—This was the case of a poor woman who had been bleeding for several days when I first visited her: there was not dilatation sufficient to allow of the introduction of the hand. I left her, desiring to be sent for immediately, should the hemorrhage return. I called again on the second day, not having received any message from her; to my surprise she was dressed and bustling about her room. The hemorrhage was not of an alarming character; the os uteri, on examination, was much more dilated, and the parts generally dilatable. As this patient resided at a considerable distance from my house, I was fearful that serious bleeding might occur in my absence, if she was left. The parts being favourable, I turned and brought down the child. Mother recovered.

Case 30.—This was a patient of the late Mr. Dunn, who sent for me very early in the labour. Turning was effected, and the mother recovered very satisfactorily. I have no note respecting the child.

Case 31.—Met Mr. Morgan Austin in consultation early in the morning. This lady had been losing blood during the night, and was beginning to suffer severely from its effects. Dilatation I was informed had been very slowly going on, but, as there was at that time ample room for the introduction of the hand, delivery was effected without difficulty. Mother recovered, the child still-born.

Case 32.—Another case of Mr. M. Austin's. I saw the female before she was at all faint from loss of blood; the presentation was partial. Turning accomplished and the child removed without even a feeling of faintness being complained of. The mother rapidly recovered. I think the child was dead, but my notes are defective. The preceding four cases are not related in the order of succession; they all occurred some time since, and my memory is insufficient to supply the hiatus in my case-book, both as regards the nature of the presentation, whether partial or complete, and also respecting the fate of the infant.

Case 33.—The last case I have to relate occurred a few weeks since in the practice of Mr. Atkinson. Mr. Atkinson was suddenly summoned to his patient, who resides near Clapham, and found that during the night very serious hemorrhage had supervened, which had produced great depression of the vital powers. On examination he detected a complete presentation of the placenta; there was but little dilatation, and the bleeding had nearly ceased. This lady's constitution was extremely delicate, and, as I had seen her in consultation with Mr. Atkinson after her previous confinement, he requested I might again be sent for. In the interim the flooding returned with increased violence; Mr. Atkinson, therefore, very properly at once effected the delivery. The child was dead. I arrived soon afterwards; the patient was complaining of excessive faintness, dizziness of the head, accompanied with nausea and flatulence. The pulse, however, did not indicate dangerous exhaustion, although it was quick and somewhat feeble; these symptoms appeared to be dependent upon the general shock which the nervous system had undergone, rather than to the hemorrhage. The uterus was well contracted, the oozing very trifling, and the stomach retained the nourishment administered—this consisting of the yolk of egg with brandy; an occasional dose of sal volatile in milk was also administered. This state continued for some hours, but no other unfavourable symptoms occurred.

GENERAL SUMMARY AND OBSERVATIONS.

From the above it will be seen that thirty-three cases of placental presentation have occurred under my own immediate observation, and that twenty-three only of the mothers permanently recovered. It would, however, be manifestly unfair to ascribe the fatal result in all the instances recorded to the old method of treating these cases, namely, by the operation of turning. For example, there had been culpable neglect in cases 1, 8, 22, and much valuable time had been lost. In the latter case (22), the patient was nearly dead when I first saw her, no attempt having been made even to ascertain the cause of hemorrhage. In cases 10, 19, 23, and 27, the females survived for several days, but eventually sunk: one case (19), from the immediate exhaustion caused by loss of blood; the others from diseases aggravated by, if not produced in consequence of, such loss.

Making allowance, however, for the facts above mentioned, it must still be confessed that the maternal mortality bears a fearful ratio to the number of recoveries when treated by the common method; and, consequently, any proposal to remedy an apparent defect in the mode of proceeding in these alarming cases, especially when its object is to preserve the life of the mother, ought to be received with respect, and, if practicable, to be fairly subjected to the test of experiment, before an adverse opinion be pronounced. This leads me to the consideration of my first question:—

Will the bleeding be arrested by the complete removal of the placenta from its connection with the uterus?

The interesting records furnished by Professor

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Simpson prove that in many cases this desirable object has been accomplished by the means proposed; nevertheless, in questions so purely practical as the present, so easily answered by personal experience as opportunities may offer, I hesitate to recommend to my pupils any novel plan of proceeding, until I can strengthen my recommendation by an appeal to facts witnessed by myself. What, then, has occurred in my own practice tending to elucidate this subject? It will be noticed that in cases 5, 6, 23, 24, 27, 28, the placenta was detached before the birth of the child, and in every such instance the bleeding ceased, not for a time only, but entirely. As the fœtus had been long dead in case 6, and the placenta when examined showed no marks of recent maternal circulation, it is presumed that the vessels had been long closed, and, therefore, no inference can legitimately be drawn from it as bearing upon the point in question; but in case No. 28 the plan proposed by Dr. Simpson was exposed to as severe a test as its most determined opposers could desire; for in this instance the placenta was entirely detached from the uterus, without rupture of the membranes, for at the least fourteen hours before the birth of the child, the effect of this mode of proceeding being the entire suppression of the bleeding: this has been the uniform result in all the cases I have had an opportunity of observing; there has not been a mere temporary arrest, but a permanent stoppage of the flooding. Although it would be premature to draw a definitive conclusion from the limited number of cases which have as yet been recorded, yet I cannot help considering it highly probable that the first question will hereafter be affirmed, and it will be found that where flooding occurs in placental presentation, from a partial detachment of the organ, its complete separation will be followed by an entire cessation of the flow.

This fact, then, being allowed, is Dr. Simpson's explanation satisfactory, viz., that the blood proceeds entirely from the exposed orifices of the placental sinuses? After much reflection I cannot arrive at this conclusion; I do not think the hemorrhage occurs entirely or even principally from these vessels, although there is no reason to doubt that blood will escape from them until they are closed by the formation of coagula around their gaping orifices, when such effusion will necessarily be prevented. It appears to me that the source of supply, "the long and slender utero-placental arteries," are insufficient to furnish the quantity of blood which so frequently bursts forth from the interior of the uterus, especially when it is remembered that such supply is partially cut off, in consequence of the placenta being already detached from its uterine connection, to a greater or less extent. Again, I cannot forget that many of the more severe cases of uterine hemorrhage which have occurred in my own practice have been those in which the hemorrhage has continued, and sometimes ended fatally, after the placenta has been expelled from the uterus, where there could consequently be no placental circulation at all; and in these cases, therefore, all the blood must flow from the uterine surface; and in the *post-mortem* examinations the patent orifices of the large veins of the uterus were obvious enough. My conviction is, that the sources from whence the blood issues in cases of placental presentation are twofold—partially from the placental caverns, but chiefly from the uterine sinuses; I apprehend that the torn arteries furnish a comparatively small quantity, certainly not sufficient to produce any alarming symptoms.

To what cause, then, is the cessation of hemorrhage to be attributed? I feel no difficulty in answering this question, for, as there is but one condition necessary for the production of the bleeding, so is there but one condition necessary for its arrest: the former consisting in a separation of the natural connection existing between the uterus and placenta; the latter in contraction of the muscular fibres surrounding the bleeding vessels. The complete separation of the placenta in the cases above related, and in those published by Dr. Simpson, must have been followed by this contraction (for under no other circumstances could the flooding by any possibility have been arrested); and although it could not have been perfect, as the uterus still contained the fœtus in its interior, yet it was sufficient to put an end to the flow of blood. Further observations are required in order that it may be ascertained whether the same result will be attained in every instance; I entertain, however, a confident anticipation that such will be the result, and that it may be as certainly expected as that hemorrhage will cease after the evacuation of the liquor amnii, where it is of the accidental kind.

Let it not, however, be supposed that I am inclined to discard the old operation, and to adhere to the new, in every instance of placental presentation. I would rather regard the new plan as a valuable addition to our knowledge in the treatment of these formidable complications of labour, but by no means likely to supersede delivery by turning; and I entirely agree in opinion with most of my professional brethren, that the cause of the great mortality is justly attributable to injudicious delay, and that far more favourable results would be obtained by a more prompt and energetic method of proceeding; in other words, to use the language of an obstetric author, "To determine to deliver early is to determine that the patient shall not die."—("London Practice of Midwifery.")

At the same time it must be acknowledged, that circumstances may occur rendering version for a time impracticable, as in cases 7 and 17, where considerable delay was inevitable on account of the unyielding condition of the soft parts: for although, as a general rule, dilatation or, at any rate, dilatability usually speedily takes place where there is much hemorrhage, yet we meet in practice with many exceptions. Had I been aware that the placenta might be removed without compromising the safety of my patients, I should have been relieved of some hours of great anxiety, and much maternal hemorrhage would have been prevented. The plan was adopted in cases 23, 27, and 28, with the happiest effect, so far as regards the flooding. In Mr. Austin's case (31), much blood was lost during the process of dilatation; perhaps this also might have been arrested.

There is also another class of cases, in the management of which the greatest benefit may be calculated upon; and I would particularly direct the attention of the profession to it, because, in the majority of instances, these are the very cases to which the physician-accoucheur is most frequently called—where the flooding has been going on for a considerable time; and he finds, on his arrival, that his patient is in an alarming state of exhaustion, the bleeding still continuing. Every practitioner of experience knows that the sudden emptying of the womb, under these circumstances, is attended with considerable risk: nevertheless he could not be blamed for making the attempt. He would naturally reason thus:—"My patient is in a very unfavourable state for artificial delivery, but, as hemorrhage is still going on, the longer I delay the weaker she will become, and my chance of success be proportionally diminished." He, consequently, turns the child, and in many instances the result is unfavourable. If, however, the safety of the proposed plan be established—if it should by repeated trials be proved that an entire separation of the placenta would at once put a stop to the hemorrhage—he would of course adopt this plan; and, by so doing, the immediate danger would be averted, the patient's strength might be recruited by the use of suitable nourishment, and in the further treatment of the case he would be guided by circumstances as they might arise.

I will merely add, in conclusion, that I wish not to be misunderstood. My experience does not warrant me in giving a decided opinion that the proposed plan will succeed in all cases; but I have seen enough to induce me to give it a trial, assuming that in the present state of our knowledge it has been attended with no increase of the dangerous symptoms, but, on the contrary, has been followed by their entire removal; and believing that, in certain cases, the adoption of the new method will be found to be practicable, at a time when recourse could not safely be had to the usual operation of turning.

Finsbury-square, Jan., 1848.

THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

By GEORGE CORFE (Author of "A Popular Treatise on the Kidney," &c.), of the Middlesex Hospital.

(Continued from page 275.)

As pneumonia or pleuro-pneumonia is the most important, the most common, and the most fatal form of thoracic inflammation in this country, so I would place it in the fore front, and attempt to show by one or two instances, as I have already hinted at when noticing the physiognomy of delirium masking pneumonia, that this disease often, nay, very often, exists when the practitioner, especially one who is inattentive to the science of auscultation, does not in the least suspect it. Let the following case serve to illustrate this assertion.

John Frampton, aged forty-nine, a bulky, atheletic man, a butcher, and a habitual spirit-drinker, admitted June 21. Countenance heavy, and with a dusky flush; eyes glistening; conjunctiva rather yellow; lips and extremities livid; respiration 36, and wholly abdominal; pulse 100, hard and full; bowels open; no cough!! no expectoration! tongue dry and furred. Owns only to pain at the epigastrium, increased on pressure. N.B. This man, adds the note in my case-book, walked to the hospital merely to seek some advice and medicine, and was desirous of returning home to work, having only left off the preceding day; but he was detained as an in-patient, and sent to bed.

Auscultation.—Free respiration in every part of the right lung. Over the lower lobe of the left lung, behind, there was extensive small crepitation, gradually becoming less towards the axilla; there was also loud bronchophony; some small crepitation existed over the upper lobe.

The account of his illness was the following:—Six days ago he complained of general weakness, pain came on in the epigastrium, but he has never had pain or distress in his chest or breathing.

V.s. ad ℥xiv. (syncope); hirud. xxx. mammæ sin.; ant. pot. tart., gr. ss. 2dis horis donec nausea excitatur.

The following day the countenance was much improved, and less anxious; the respirations were more thoracic; nauseated and purged by the ant. pot. tart; pulse 100, and hard; less crepitation over the lower left lobe.

C.c. ad ℥xvj. hypoch. dextr.; hst. salin. c. vin. ant. p. t., *m.* xx.; vin. ipec., *m.* x. 6tis; hydr. chlor., gr. iij. 6tis interme diis; ung. hydr. fort. cruribus infric.

The following diagnosis was now made:—Red hepatization, or the second stage of pneumonia, exists in the left lower lung, and the first stage, or "engorgement," is going on in the upper lobe.

He continued to go on favourably until the evening of the 27th; but, although he had taken the mercury since the 22nd, yet his gums were not in the slightest degree affected, but his pulse came down to 86. Prior to this relapse we had been informed that he was a habitual spirit-drinker. He now became suddenly delirious, noisy, and sleepless; the pulse rose to 120; the surface became moist and clammy; great agitation of the whole body when he attempted to move; tremors of the limbs and tongue, which was dry and red; but hitherto he had had no cough, and therefore no expectoration!! In this condition he lingered on, getting worse and worse, until the morning of the 29th, when, at eight A.M., he expired.

Post-mortem Examination Seven Hours after Death.—Thorax. Left pleura filled with turbid, wheylike serum, without flakes, but some thin

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ones adhered to the costal pleura. Lung slightly compressed. One third of the lower lobe was in a state of grey hepatization, external to which, and around this portion, the lung presented the appearance of being mottled, from a melange of red points and grey substance, the former, it would seem, arising from the portions of unabsorbed red particles which still remained about it, for above this spot, and in a distinct line along the edge of the lung, ran a piece of vividly red lung, sinking in water, and feeling firm.—(*Red Hepatization.*) Many portions, perhaps all, of the grey lung sank in water, and when it was squeezed, a dirty, grey, purulent fluid oozed out. The upper lobe was vascular, and some points of red hepatization were observed in it also. The lower lobe of the *right* lung, when cut into, was extremely red, and much frothy blood escaped on cutting it; this would seem to have been the stage of "engorgement" and red hepatization combined; but the latter was not so advanced as to influence the permeability of the organ. The heart was large, there being hypertrophy of the left ventricle. The liver was large also, and gorged with blood. An unnatural amount of fluid in the cavities of the brain.

I could adduce very many more instances of patients who have laboured under the severest form of pneumonia, but the symptoms of whose disease were so insidious, and so contradictory, that, but for auscultation and heautophonics, I am convinced the pneumonia would have been wholly overlooked, and the *post-mortem* examination only would have exhibited its fatal ravages. It has, therefore, become a practice in this hospital to submit almost every patient labouring under ordinary febrile symptoms to a careful auscultation, &c.; and it would be a great and a valuable desideratum in medicine if every practitioner would follow this judicious practice: for if, as Dr. Christison justly and sensibly remarks in his work on "Granular Degeneration of the Kidneys," "the most advanced disease of the renal organs may exist, urea may be circulating in the blood, and yet it is by no means an essential feature in this disease that dropsy, either general or partial, should exist;" even so, likewise, I may observe that the most alarming inflammation may be going on in one or in both lungs, carrying on mortal destruction throughout its whole texture; yet the medical man shall not be able to find cough, expectoration, or pain amongst the varying symptoms of this disease; and if he falsely hopes that the malady does not exist, because these physical signs are absent, and if, moreover, he obstinately rejects the invaluable aid of the sense of hearing, and of seeing, &c., as already referred to, his conduct is as unprofessional as it is criminal and indefensible.

The next disease which we may now advert to is bronchitis, because it often happens that it is mistaken for pneumonia in its acute, and for phthisis in its chronic, stages; but the physiognomy and the study of the assimilation of symptoms in these respective diseases will often solve this difficulty before the patient is submitted to auscultation.

In acute bronchitis, without emphysema, the countenance is lighted up with some anxiety, the chest heaves, the alæ nasi work, the angles of the mouth are drawn up in the respiratory acts, the eye is open and bright; but not so in pneumonia: the reverse of these physical signs present themselves here. Whilst in the chronic form of bronchitis, so often mistaken for phthisis, and *vice versâ*, the countenance is not wan, pallid, thin, distressed, pinched, and careworn, as in tubercular softening, there is no raucous voice or faint whisper in talking; no dyspnœa compared to that which attends a protracted conversation with a phthisical patient. In the former the chest heaves, in the latter it is passive; the lower ribs only act; the clavicles are motionless; or, if the tubercular deposition exist chiefly in one lung, as already remarked, the subclavicular region is flattened, attenuated, and even hollowed out. But, above all, the respiratory murmur improves from *above* downwards in phthisis, whilst the bronchitic sounds are, for the most part, in the lower lobes. This valuable diagnostic sign has been of the utmost importance in the decision of cases in our wards. On one occasion a gentleman's coachman was brought here, labouring under hectic symptoms, blue countenance, and other evidences of rapid exhaustion; he had a severe cough, and the expectoration was moulded, globular, puriform, and sweetish to his taste.(a) We all pronounced the case to be one of tubercular softening, until the chest had been examined, when it was found that the upper lobes were tolerably free, but large, and general crepitation existed over the lower lobes. This convinced me that the disease was one of universal chronic bronchitis, and so it proved to be, for at the *post-mortem* examination there was not a vestige of pulmonary disease, but general engorgement of the bronchi, with heavy globular masses of puriform matter, which had rendered the admission of air and oxygenation of the blood impossible.

My kind friend Mr. Vickers some time ago asked me to auscult the chest of a delicate female servant, under somewhat similar circumstances. She was supposed to be labouring under tubercular softening, from the emaciation, cough, and purulent character of the expectoration; but the reverse proved to be the case on examining the upper lobes, and on comparing the sounds they elicited with the bronchitic disease manifested in the lower lobes.

A relative of mine was under the care of a late physician of eminence for unequivocal symptoms of phthisis, as he believed. There was upwards of a pint of heavy, greenish, rounded masses of expectoration brought up daily; rapid emaciation, slight colliquative perspirations, hectic, &c. &c. He was ordered to leave town for his health, and I went to see him at his residence in a village in Surrey. The same train of symptoms still continued, and I then auscultated his chest for the first time, fully anticipating to meet with cavernous respiration, pectoriloquy, &c., under one or both clavicles. My surprise was not little when I found neither, but healthy vesicular breathing under both. I watched the case narrowly, but he was suddenly ordered to leave this spot for Brighton, where he had not been for more than twenty-four hours when his wife placed him in a Bath chair, and he was wheeled on the Marine Parade for the air; but he soon experienced a feeling of suffocation and distress that was indescribable, and shortly afterwards he fainted away. His wife became so alarmed that she instantly ordered a postchaise and removed him back to the village, from which time he rapidly improved, and has been ever since a strong, robust, and active man. I have since examined his upper lobes, and find them permeable in every part, without the least traces of solidification.

Bronchitis presents but little to the eye of the practitioner, apart from auscultation, that needs farther notice. I would only remark that during the winter months, among the large number of applicants at this hospital with chest diseases, two-fifths of them are bronchitic connected with simple emphysema, or emphysema with œdema pulmonum; so that the first-mentioned disease is only superadded to that of an old standing, but recently revived, emphysema. But I will suppose the patient presents the following appearances:—His respiration is deep, thoracic, and free; the chest freely moves in every part; his countenance has a dusky, livid blush upon it; his eyes are clear and bright; his brows are raised; his eyelids open; his lips of a Modena red; his alæ nasi freely working during the efforts of breathing; his thorax is sonorous all over; he has rhonchus, sibilus, and some large crepitation over various parts of his lungs behind, especially increasing towards the lower lobes; he has a constant worrying cough, with repeated straining efforts to bring up phlegm, and after some trial (perhaps twenty or thirty efforts) he expectorates a tough, frothy mucus, with a muco-purulent sediment: then the man undoubtedly labours under bronchitis, superadded to emphysema, with antecedent cardiac disease; and this latter change probably consists in a dilatation of its cavities and a thinning of its walls.

Amongst the general remarks which were made upon the physiognomy of the diseases of the thorax, it was mentioned, that a dusky and anxious countenance, a greasy face, nostrils dilated, their alæ waving to and fro, together with more or less swelling of the joints, invariably denoted either *endo-carditis* or *exo-carditis*, or both. I say more or less swelling, for at this moment there is a most acute form of this disease supervening upon the slightest possible rheumatism of one wrist only, in a delicate lad of nineteen. There has been "the attrition," or exo-cardiac sound, and now the bulging of the præcordial region, the oscillating carotids (a), the distended jugulars, a systolic murmur, and the above physiognomical characters, indelibly mark the disease on one's mind as rheumatic carditis, with a large amount of fluid in the pericardium, which may probably terminate fatally even at this period of the acute stage.

The following case is an instance of the fatal character of this insidious disease:—

RHEUMATISM; ENDO AND EXO CARDITIS; FATAL.

Ann Hunt, aged twenty-four, married, wet-nurse, admitted Nov. 21. A pale, anxious, and pointed cast of features; owns only to slight pain in the wrist and knees. Some pain on pressure in the epigastrium; vomiting; pulse 110; heart's action strong and loud, attended with a distinct mitral bruit.

Ten days ago was seized with rigors, but has only been confined to her bed three days with the arthritic swellings; does not seem to be aware of having had any sudden pain come in the epigastrium; dares not go to sleep, she says, for fear of frightful dreams.

℞. V.s. ad. ℥xij. (syncope); hydr. chlor., gr. v. 6tis; c. vin. sem. colch., ℥ss.; inf. digital., ℥j.; ex aq. menth. pip. in haustu.

23. Cannot lie on the left side; heart's action feebler, and intermitting; dimness of vision; no sleep, and great restlessness; blood buffed. Omit. hst. pt. pil., ung. hydr. fort. cruribus infric. bis die.

28. This evening she was found much altered, and every appearance of approaching dissolution. The pulse and actions of the heart were scarcely perceptible; extreme restlessness; *ptyalism;* (b)

(a) We have often had occasion to notice that when flies assail such expectoration and such patient's bodies that the case is progressing towards a fatal termination; whether it is the saccharine odour of the phlegm or the effluvia of the body, or both, which attracts them, I cannot pretend to decide.

(a) I should here remark, that I am induced to lay some stress upon this peculiar state of the action of these arteries in carditis, since I have repeatedly noticed it in those acute seizures of inflammation of this viscus which attend rheumatic fever. The stiffened valves on the left side of the heart, the first and early product of endo-cardiac inflammation, with acute pericarditis, will, I believe, produce this oscillation of the carotid arteries. These "floodgates" of the heart are, under such circumstances, unable to perform their office; not only is the rhythm of the sounds altered, but the muscular walls of the organ, and especially the cordæ tendineæ of the ventricle, are divested of their well-poised muscular contractility, whilst the several columns of blood are ejected from the cavity; so that not only is the full rheumatic pulse felt at the wrist, but the central organ of circulation is diverted from its natural force. I do not wish to convey the impression, however, that this oscillation is wholly the result of valvular inflammation, for it is doubtful to my mind whether it does not more commonly denote actual effusion into the pericardiac sac, and that such effusion coexists with endo-cardiac inflammation.

(b) This fact (the occurrence of ptyalism, during the unabated violence of the inflam-

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frequent sighing; bruit heard behind; constant sickness; some crepitation over the lower lobe of the left lung, with extensive dulness on percussion. The following diagnosis was entered in the case-book.

"Partial adhesion of the pericardium; serum in considerable quantity still within it; pleuritic effusion on the left side."

She lingered on a few days, when the palpitation became more severe, and she gradually sunk, the pulse not being felt for fifteen hours before death.

Post-mortem Examination Twenty Hours after Death. — Pericardium distended with dark-coloured serum; a shred of lymph seen floating in it; three or four distinct patches of thickened and adherent membrane on the surface of the heart, having loose edges, but unattached to the pericardium; the corresponding portion of this membrane was dotted, for the same space, with a series of red puncta; other parts of the heart exhibited the same red appearances, but without any corresponding redness of the pericardium; the vessels of the heart turgid with blood; the mitral valve was thicker than parchment; close to it, and in the auricle, the lining membrane was mammillated, from a deposit of recent lymph which was firmly adherent; hypertrophy of the left ventricle; water passed *guttatim* from the aorta into the ventricle; the valves of the former were rigid at their bases only; the lower lobe of the left lung was in a state of red hepatization, with serum in the pleuræ.

The mother stated that her son, eighteen years of age, died under the care of Dr. Hue, in St. Bartholomew's Hospital, from diseased heart after rheumatism; and that another son is now (Feb. 4) under Dr. Latham, in the same hospital, who is seriously ill with rheumatic fever, which has "flown" to the heart.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meeting of Jan. 17; M. Pouillet in the Chair.

EXPERIMENTAL RESEARCHES ON THE BLOOD CONTAINED IN THE SPLEEN AND VENÆ PORTARUM, BY DR. BÉCLARD.

This paper was founded upon the comparative analysis of the blood in the veins and in other vessels. In a first series of experiments, Dr. Béclard ascertained that the blood had evidently the same composition throughout the whole arterial system: this was to be expected *à priori*: arterial blood being generated in one organ, the lung, and propelled by one effort of the heart in all directions. The venous blood, on the contrary, proceeding from the organs to the lungs, has different origins, and therefore a different composition. Comparative analysis of the blood in the carotid with that furnished, by the femoral and jugular veins, showed that the venous blood contained less globules and rather more fibrine than the arterial. Having determined these first data, the author endeavoured to establish a comparison between the blood contained in the various parts of the venous system. Thirty-two chemical analyses were performed, of the blood extracted from sixteen animals, at the same time from the spleen and jugular vein, and the result of these researches was the discovery that the splenetic blood contained less globules and more fibrine than that coming from the jugular vein; hence the spleen would seem to be the agent of the destruction, instead of being the instrument of formation, of the globules.

With regard to the composition of the blood contained in the venæ portarum, it would appear that its constitutive elements varied considerably according to the period of digestion at which the blood was analyzed. At the beginning of digestive absorption, the quantity of albumen was greatly increased, and during the second stage of this absorption the globules augmented. In animals submitted to prolonged abstinence, the blood of the vena portarum had the same composition as the blood of the jugular vein and other parts of the venous system. The contents of the venæ portæ not presenting a larger proportion of fatty matter than the blood of other parts of the venous system, and, on the other hand, chyle differing principally from lymph by the presence of fatty matter, the author concluded it was very probable that albumen penetrated the circulation only through the agency of the vena portarum. Further, the transformation of albumen into globules, taking place in the venæ portæ, and requiring some time for its accomplishment, explained satisfactorily why a special circulation, independent in a great measure from the laws which regulate the general venous system, had been granted to the liver.

A paper "On the Physiological Presence of Copper in the Organs of Plants and Animals" was forwarded by M. Deschamps; and also an account, by Dr. Plouviez, of Lille, of some experiments made upon animals with chloroform. In these experiments, asphyxia was produced by the inhalation, and dispelled rapidly by insufflation of air into the lungs.

ACADEMY OF MEDICINE.

Meeting of Jan. 18; M. Royer-Collard in the Chair.

CHLOROFORM.—Two cases of painless parturition, under the influence of this agent, were forwarded by Dr. Mordret (of Le Mans): in the first, the application of the forceps was necessary; in the second, the inhalation of chloroform was indicated by the unusual violence of the pains.

TREATMENT OF SYPHILIS BY PREPARATIONS OF IODINE.—M. Renaudin read a report on a volume consecrated to this subject, by Dr. Moij-sisovics, surgeon of the Hospital General of Vienna. The author recommended the exhibition of iodine in all stages of syphilis: his doctrines did not differ from those generally adopted.

CHOLERA INFANTILIS.—CLINICAL LECTURE BY PROFESSOR TROUSSEAU.—The cholera of children is one of the most frequent, and perhaps the least known, of the maladies of infancy. It attacks them when they are improperly weaned. The new food which is offered to the stomach disagrees with it, and produces a diorrhœa at first of a mild, but afterwards of an incoercible, nature. After lasting some time without occasioning any great change in the general condition of the little patient, this disturbance of the digestive functions suddenly brings on a striking and frightful alteration. In the space of a few hours the eyes are sunk and surrounded with a bluish margin; the face and extremities are as cold as marble; the temperature of the mouth and tongue is also lowered much beneath the standard of health; the skin loses its elasticity, and pits on pressure: if, for instance, the skin of the abdomen be seized between two fingers, the fold thus produced does not disappear when the hand is removed. Respiration is deep and slow; vomiting incessant; the diarrhœa, at first lienteric—*i. e.*, consisting of the passage with the fæces of recognisable nutriment—is soon constituted, when all the food contained in the bowels has been thus evacuated, by a greenish fluid, and sometimes of so light a colour as to be mistaken for urine: this secretion, as in the cholera of the adult, is suppressed. Cramps are observed in the child; they are attested by the cry, coupled with rigidity of the extremities, the cry not being followed by alvine evacuations. The disease may last from a few hours to two days, great danger seldom being prolonged beyond the third day. With regard to treatment, we should recollect that vomiting and diarrhœa do not constitute the essence of cholera, but only two of its features: we should seek that essence in the nervous disturbance, which from the beginning seems to impede, or at least greatly to interfere with, the action of the heart and the circulation of the blood. In children the vomiting and diarrhœa can even be arrested without very great difficulty by the exhibition of astringents and opium; but this arrest almost invariably proves fatal within a short time. We recommend during the first period the application of stimulants to the surface of the body; for this purpose the child may be plunged in a bath heated to 28° R. (95° F.), some mustard flour having previously been placed in the water. The child should be held in the bath for some ten minutes, and this application repeated twice or even three times in the course of the day. The most advantageous internal exhibition is ipecacuanha. In order to facilitate the reaction we also employ a stimulant mixture of the following nature:—℞. Aq. menth. pip., ℥j.; syrupi etheris, and syr. corticis aurant., aa. ℥ij. Sumat. cochl. j. ampium q. horâ. When the reaction is fully established, these measures should be suspended and antiphlogistic remedies put in requisition.

DELIRIUM IN PNEUMONIA.—CLINICAL LECTURE BY M. GRISOLLE.—Delirium is one of the most frequent and most severe cerebral accidents by which pneumonia can be complicated. One third of the cases in which this complication is observed refer to habitual drunkards; the seat of inflammation in the summit of the lung has also been considered as having considerable influence upon the production of delirium; but recent observation has not fully confirmed this very generally adopted opinion. Out of twenty-seven delirious cases of pneumonia, observed by Dr. Grisolle, in nine only was the summit affected; the basis was inflamed fourteen times, and the middle lobe only in four patients. Professor Andral and M. Briquet had come to the same conclusion. It is, however, quite correct to say that, when both lungs are affected, delirium is more frequent. It is more common in men than in women in the proportion of twenty-one to six; and it is more usual between fifty and sixty years of age than at any other period of life. Drs. Hourmann and Dechambre state that delirium usually accompanies pneumonia in the aged pensioners of La Salpêtrière. The delirium makes its appearance at the end of the first week, or the beginning of the second, after the outset of the disease, and varies in its intensity from quiet divagations to the most violent sort of furious raving. The appearance of delirium during the progress of pneumonia increases the severity of the prognosis; when the delirium is a predominant symptom, particularly if the pulse be quick and small, or slow and soft—in a word, if absence of harmony is observed between the extent of the local damage going on within the chest, and the amount of vascular reaction—musk, recommended by Dr. Récamier, should be employed in doses of 10 to 15 grains daily, in pills. When the patient is a person addicted to fermented liquors, art possesses a greater number of resources: opium should be first employed, and is generally successful; it should be exhibited until sleep has been procured; when the patient wakes, the delirium has usually departed. A little wine, particularly at the beginning of the

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matory action, in serous inflammation, but especially in pericarditis) it has been my lot to observe so repeatedly, during twenty years' hospital practice, that I cannot accede to the proposition which is laid down by some eminent authorities, that mercury is alone to be trusted to in this form of inflammation. Nay, farther, I have witnessed several instances where calomel and opium have been administered at the onset of acute fibrous rheumatism, and whilst there was no appreciable alteration in the sounds of the heart, and where, too, the gums have become touched, and yet, at a subsequent period of two or four days, a "bruit" has arisen, or an attrition sound has been detected, for the first time, although prior to such an occurrence, the cardiac region was explored in vain for these auscultatory symptoms. The combination of the above medicines with a grain of the acetous extract of colchicum, administered every six hours, with a drink composed of potas. nit. ℥j. dec. hordei oj., has certainly proved the most efficient means in the treatment of the disease in the wards of this hospital, apart from bloodletting, &c.

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delirium, will sometimes suddenly arrest its progress; and the presence of this accident should not prevent the physician from having recourse to venesection, if required by the other symptoms.

D. M'Carthy, D.M.P.

Scrofulous disease of the glands of the neck, Dr. William King, in a paper read before the Brighton and Sussex Medico-Chirurgical Society, says, "When the glands of the neck are diseased they begin with small oval tumours, which gradually increase in number till they form one large tumour. At first they are not tender. They are moveable under the skin, and sometimes extremely hard, but gradually soften as they approach suppuration. They have been known to be so large as to produce suffocation by pressing upon the trachea. As suppuration takes place they soften and inflame till the skin ulcerates, and a thin fluid is discharged with flakes of tubercle. Sometimes, instead of suppurating, they become obstinately indurated. Formerly scrofula was supposed to be a poison which concentrated itself from the whole body into the gland, and suppuration was encouraged in order to get rid of the poison, or the gland was extirpated: a different theory has led to a different practice. The constitution is strengthened and the tumour is dispersed if possible by absorption, *i. e.*, the disease is considered to be constitutional, and to consist with a morbid state of the blood and of the absorbents, with great debility as the consequence. The blood is therefore purified and strengthened, and the absorbents stimulated to a healthy action. While it is doubtful whether the disease is simple or scrofulous, or mixed, leeches and evaporating lotions are applied: in proportion as it is thought to be specific and scrofulous, tonics are used, and iodine internally and externally. Lugol gives half a grain of iodine twice a day, increased gradually to one and a quarter; one grain of iodide of potash increased gradually to three. When suppuration is unavoidable some apply poultices to hasten it; others think that they obstruct the granulations, and tend to make the ulcerations and the ultimate scars larger, and they persevere with the iodine till the last. When matter is really formed it should not be allowed to discharge spontaneously, because this requires time, during which the abscess increases in size, more internal mischief takes place, the scar will be larger, and the opening seldom chooses the best position. The matter should, therefore, be discharged artificially; if the abscess is small it is punctured with a lancet; if it be large with a trochar, and, when emptied, injected with a solution of iodine, two or three grains to a pint of water; or iodide of potash, four or five grains to a pint. The injection should remain a few minutes and be withdrawn, and a compress of lint applied. This will sometimes obliterate the cavity; if it does not, a free opening must be made. When the skin is unhealthy Baudeloque prefers opening the abscess by caustic, made of equal parts of quick lime and caustic potash, made into a paste with spirit of wine. He thinks the wound will heal better if all the unhealthy skin be removed in this way.

Luxation of the Semilunar Cartilages of the Knee-joint.—Mr. Vincent remarks, in his "Observations on Surgical Practice," that he has had several of these cases under his management; always, as might be expected, of the internal one. The case is marked by the joint becoming, on some quick motion of the trunk about the axis on one leg, locked. Often there is great pain, and a slight projection of the anterior edge of the cartilage beyond the margin of the head of the tibia. It is a fact that the pain is sometimes excruciating, and will continue, yet the moment the cartilage is reduced, no pain, or even tenderness, will remain. Much force and varieties of positions given to the knee by powerful means is worse than useless. He has only seen one case in his practice ever reduced by any thing like force, and that was in a man who had frequently suffered the same, where, by carrying the leg as far back as could be done, the cartilage slipped into its place. The true way of manipulating here, is to place the patient on his affected side, with the limb bent, and then to rotate gently the tibia on its axis. In this position the joint is loose, making no pressure on the cartilage, and it has the best chance of quietly slipping into its place. It has been known in this luxation, when left alone, that whilst the patient was asleep the cartilage has slipped into its place after a few days. A medical gentleman in the country came to Mr. Vincent not long since to confer with him about a case of this sort in a patient of his, a miller. He had tried every experiment in vain. He was assured he might make his mind easy, and go back and try to keep the miller in bed, and it would slip into its place while the man was asleep. He very soon wrote that it happened as it had been predicted, even though he could not prevent the miller going into his mill. If the gentle rotatory motion does not succeed, the only thing is to keep the patient in bed, and in some of his slumbers all will come right. Of course, if this accident has once occurred, it will be liable to happen often.

Strumous Conjunctivitis.—This disease, Dr. King says, is the most prevalent before puberty, nine-tenths of ophthalmic attacks being strumous. The prominent symptoms are intolerance of light and profuse lachrymation. The old treatment was leeches, blisters, and a dark room. The modern treatment is exercise in the open air, a good diet, tonic medicines, especially quinine, iodine, and iron; and locally laudanum and belladonna to soothe; and as astringents, acetate of lead, sulphate of zinc, nitrate of silver, and Tr. iodini, but especially silver and iodine. The solution of silver is two grains to the ounce of distilled water, increased gradually to five or more, if ulcerations form on the cornea, in which case even the solid stick may be used. Velpeau, of La Charité, formerly preferred the lunar caustic to all other applications; but iodine was not then so well understood as it is at present. He also paid continual and high compliments to Mr. Wardrop as the most original writer on the eye then known. When the iris is affected, the iodide of mercury is said to be useful. It has also been recommended to apply the solid lunar caustic or the Tr. iodini to the external surface of the closed eyelid. Dr. Furnival says it will stop the morbid action in the first stage, and in the chronic stages it will lessen, and even remove, opacities of the cornea.

Cold Water in Fever.—Dr. Nevins read a paper at the Liverpool Medical Society, on the beneficial effects of the use of cold water in fever. He applied it by means of a sheet dipped in cold water, and folded once round the body, and immediately enveloped the patient in four or five blankets, so as carefully to exclude the external air. Profuse perspiration was soon induced, which was allowed to continue for one or two hours, and was then checked by folding the patient for a moment in another cold wet sheet, after which he was rubbed dry and placed in bed. Whilst in the blankets cold water was allowed to the patient, as a drink, if desired. The patients operated upon were from ten to thirty-five years of age, and were generally within the first three or four days after the accession of the fever; whilst the skin was hot, and the pulse frequent, with some power. In these cases the skin became soft and moist, the heat abated, and the pulse was reduced in frequency, and it had not been observed that any injurious depression resulted from the perspiration, whilst the severe headache frequently present was essentially relieved. Even when there was slight bronchial affection he had used this plan without its being increased, and, on the contrary, it appeared to be mitigated, if previously slight. If severe he never applied the cold sheet.

Congenital Hernia of the Liver through the Umbilical Ring.—Dr. Pochhammer was called to examine a new-born child, the non-excised portion of whose umbilical cord was distended by a tumour, of the size of a hen's egg, filling up the umbilical ring, through which it protruded. Not being able to press the tumour within the abdominal cavity, he cut through the coverings of the tumour, which was then found to be produced by the displaced liver, with its gall-bladder well formed. He dissected the liver away from the adherent integuments, and then replaced it as high up in the right hypochondrium as he was able, and placed a ligature around the base of the cord. The operation was successful; the remaining portion of the cord withered, fell away, leaving a healthy cicatrix; and the infant continued to grow and enjoy good health. At the end of a year from the operation, the umbilical ring remained dilated to the size of a crown-piece, but the abdominal viscera were readily retained *in situ* by a simple bandage.

Chinese Method of Testing the Purity of Opium.—The opium from Bengal, which consists of two kinds—namely, Patna and Benares—is always of a good quality and pure; but the Bombay malwa is now so much mixed up with other ingredients, that the Chinese smuggler will not buy it until he has had an opportunity of testing its quality. This is done in the following manner:—having selected the chest or number of chests which he wishes to purchase, they are opened, and he takes out three or four of the worst-looking cakes, cuts a small piece from each, and dissolves them in a copper ladle over a charcoal fire. When the opium is melted, it is poured out into a coarse paper filter. If it is not of the worst description it readily passes through the paper into a small basin which is placed under it. When it will not pass through the filter, the Chinese call it man-ling; by which name they designate opium which is so bad, or so mixed with extraneous ingredients, that it will not dissolve in water or pass through the paper filter. This description of the drug is, of course, only bought at a very reduced price. When the mixture passes through the filter, the paper is carefully examined, and if any sediment remains, such as sand or rubbish, with which the opium is frequently adulterated, it detracts considerably from its value. This filtered mixture is now put again into a clear copper pan, and boiled slowly over the charcoal fire, until the whole of the water is evaporated, and nothing remains but pure opium. The drug is then poured out into a small porcelain cup, and stirred round and examined with great care. At this stage of the process, colour forms the principal test of its quality, and as the smuggler stirs it round, and holds it up to the light, he pronounces it to be "tung-kow," if it is thick like jelly; "pak-chat," if it has a whitish colour; "hong-chat," if it is red; and "kong-see-pak," if it is opium of the first quality, or like that sent round by the East India Company.

Ulceration of the Os Uteri, a Cause of Sterility.—Dr. Mitchell, in "The Dublin Medical Press," relates a case which was cured by application of nitrate of mercury, and subsequently nitrate of silver in strong solution. The lady afterwards bore children. Dr. Mitchell cautions the profession as to the use of sponge tents, and mentions a case in which a piece of sponge had been allowed to remain in the vagina, and had formed an adhesion with the os uteri, effectually blocking up the passage. The sponge had been used as a plug in a case of flooding during abortion, and when removed the female rapidly recovered and became pregnant.

Sarcina Ventriculi.—Dr. Schlossberger, of Tubingen, says the effects of reagents on the sarcina are interesting, as showing that it possesses chemical characters distinct from most of the organic forms which present themselves to the microscopic observer. It has been ascertained, by experiments, that cold and hot water, alcohol, ether, volatile and fixed oils, have little or no effect on this parasite, except occasionally causing slight shrinking in volume. Organic acids, and dilute mineral acids, have likewise no effect, even at the boiling temperature. Iodine tinges it with its own yellowish colour, but gives no indication of the presence of

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phuric acid causes it, after a time, to divide into sections, precisely as Goodsir and others have described its natural division. Nitric acid develops, in some instances, a yellowish colour; in others, produces no change. Caustic potass in solution decolorizes it immediately, and, after several minutes, causes it to split up into its ultimate divisions. Many of them, however, generally resist this reaction for a considerable time. Fermentation and putrefaction cause no change. The only organic forms liable to occur in the stomach which present similar chemical reactions to the above, are the torulæ of fermentation, from which the sarcinæ are easily distinguished. Disintegrated muscular fibre, which was once thought might be the cause of the appearance presented by this parasite, disappears immediately under caustic potash. The result of numerous experiments, in which various substances were submitted to artificial digestion, and to the vinous, acetous, and putrefactive fermentations, is, that the sarcina has not been artificially produced by any of these methods. The sarcina has hitherto been found only in adults, in the stomach and alimentary canal, after death; in vomited matters; and in the fæces during life the symptoms attending its appearance are by no means uniform. It is even doubtful whether its appearance be necessarily connected with any appreciable symptoms. It has been found in the fæces where vomiting was not present; and Virchow asserts that he has found it in an abscess of the lungs, and in the stomach after death, where no symptom during life of dyspepsia had existed.

Spontaneous Cure of a Cancerous Affection.—Dr. Joh. Hielscher, of Vienna, relates the case of a man, aged sixty-years, a watchmaker by trade, who had suffered for several years under an affection, which he called cramps in the stomach. He was greatly emaciated. The appetite was increased, although the food taken was immediately vomited. At irregular periods he experienced pains in the epigastric region, which were relieved by vomiting, the rejected matters being sometimes green, more frequently resembling coffee, and often darker coloured. Cancer of the pylorus was diagnosed, and the treatment restricted to oleaginous remedies and regulation of the diet. On the 4th of May, 1846, he vomited in the course of a few minutes about six pounds of blood, which was frothy on the surface, appeared of a dark-brown colour, and contained lumps of black coagula, and remains of the food. The patient was greatly exhausted, the extremities cold, the pulse small, and he fainted. To relieve constipation he had been in the habit of taking drastic pills, which, however, had not produced the desired effect, but seemed to increase the vomiting. Vomiting of blood had first appeared two days previously, but had only become violent during the last few hours. Ice-pills, lemonade, and applications of ice to the epigastric region, were ordered. These remedies checked the hematemesis, and the patient fell into a deep sopor, from which he was every now and then aroused by spasmodic pains in the stomach. In three hours the application of ice was discontinued, and a mixture of mucilage with gr. opii ordered. Cool soup was allowed for diet, and the vomiting was found to have ceased. During the next four days the pains in the stomach diminished in violence, and occurred at longer intervals. On the 11th of May he was allowed a little wine and solid food. The constipation continued, which could not be relieved by clysters, and a purgative was ordered. At his request a stewed pigeon was prepared for him, some of which he swallowed hastily. He was seized with most violent pain in the abdomen, which concentrated itself around the umbilicus. No vomiting occurred, and he stated that his stomach was free from pain; in two hours and a half the pain disappeared. The next morning there was feverish pulse, increased temperature of the skin, and flushing of the cheeks. The pains were felt in [illegible] drops, and [illegible] general. The urine contained a sediment, and was strongly ammoniacal. The lower part of the abdomen was swollen, and tender on pressure. By means of clysters, and the introduction of the finger, a few hard fæcal masses were removed from the rectum, and cold applications to the abdomen, and decoction of linseed internally ordered. On the 10th of May, after suffering several hours' severe pain, and the exhibition of three enemata, a copious stool was procured. It consisted of between five and six pounds of a milky-white, purulent-looking matter, mixed with a considerable quantity of blood, but little fæces. There was found in it a somewhat solid mass, of roundish form, like a mushroom without a stalk, about two inches in diameter, and one inch in thickness. It consisted of a solid nucleus, about the size of a sixpence, on one side covered with a delicate crust, and on the other embedded in a greyish-yellow, loose, and somewhat glutinous mass. In a few hours another stool followed, in which a similar mass, of smaller size, was contained. Both masses were examined by Dr. Lautner, and were declared to be cancerous. For a few days there passed involuntarily, *per anum*, a purulent bloody fluid. From this time recovery commenced, all pain disappeared; the urine passed without difficulty—instead of constipation, there was diarrhœa; all vomiting had ceased, and the appetite returned. Appropriate remedies checked the diarrhœa, food was gradually increased; and eventually he recovered.

Treatment of Corneitis.—Dr. Jacob, of Dublin, says, in "The Dublin Medical Press," that local applications, in this disease, except a sedative stupe or tepid lotion, with the view of allaying pain, if present, are not called for, and, in the early and acute stage, such stimulating applications as solution of nitrate of silver or the vinum opii, sometimes resorted to, should of course be carefully avoided. At a subsequent period, when the increased vascularity and sensibility of the conjunctiva, induced by the inflammatory action, exist, during what is generally considered the chronic stage, remedies of this description may be used with advantage; but as the principal mischief is so much beneath the surface, and so liable to be aggravated by any irritation, great caution must be exercised in their application. For the removal of the diffused opacity of the cornea, proper stimulants may be employed, but not until every trace of inflammatory action has long disappeared. Solutions of nitrate of silver, sulphate of copper, sulphate of zinc, or the combination called lapis divinus, will perhaps answer. A solution of iodide of potassium, ten grains to the ounce of water, is especially recommended; or, as a substitute for animal bile, said to be effectual, touch the surface with the camel-hair pencil, previously dipped in water and brushed two or three times on soap. It should be recollected that this diffused opacity, not being a cicatrix from ulceration, disappears in time, and that its disappearance is often delayed by the premature and unnecessary use of stimulants. It is not to be forgotten, that as the inflammation frequently, if not generally or always, extends to the membrane lining the chamber of the aqueous humour, the pupil should therefore be occasionally dilated by belladonna to prevent adhesions. A sedative lotion containing a drachm of good extract of belladonna in eight ounces of fluid, applied with a scrap of old linen occasionally during the day, will answer the purpose, and, if it does not, the outside of the eyelids and the brow must be painted with the softened extract. It is scarcely necessary to add, that for the removal of this disease, the apparent cause of it, or at least the cause of the predisposition to it, should be removed. Generous diet, pure air, and comfortable clothing, will often do more than any medical treatment. More than once it has disappeared in an ill-fed, badly-clothed child, after removal from a close room in the city, or a damp cottage in the country, to a comfortable bed in the hospital, without the administration of any medicine.

THE MEDICAL TIMES.

SATURDAY, JANUARY 29, 1848.

NOTICE.

The Editor having arranged to Present a Handsome Coloured Chart of Chemical Analysis to each annual Subscriber entered on the roll of the Office, it is respectfully notified that all gentlemen forwarding their annual subscription within a month from this date, will be entitled to a copy. The Chart is a beautiful Lithographic Engraving, 41 inches wide by 28 deep, and contains a compendious Synopsis of the Science of Chemical Analysis, giving substances, tests, and results (with colours), adding, by very skilful arrangements, a complete *resumé* of the tests by the blowpipe, with their results, a scientific description of the agents employed, and an able development of such doctrines and facts of Chemical Analyses as are not dependent for their elucidation on colour alone.

This Chart will be ready for distribution on the 15th or 22nd of February, and will be forwarded, free of expense, to each annual Subscriber.

It must be added that, this being a gift, no applications can be entertained from parties not on the roll of the Office.

THE TWO DEFENCES.

There are two ways known to decent people of meeting an accusation—justifying the deed done, or denying it. There is a class of persons, however, made of different stuff, too impudent to mind consistency, and too abashed to defy opinion—the courage of the Hector of one hour giving way to the shrinking of the coward of another—who will unite both extremities of defence, and will one hour claim as a glory and a "pride" what they next throw back as a scandal and an infamy.

A few weeks ago we transferred to the Medical Times an advertisement that had been inserted very industriously in successive numbers of the daily *Times*. The following is a copy:—

"[Advertisement.] — Operative Surgery.—Amputation at the shoulder-joint in a patient aged seventy-one, successfully performed under the influence of ether by Thomas Wakley, Esq., surgeon to the Royal Free Hospital. Also amputation of the arm in a man aged seventy-five, under the influence of ether, successfully performed by Thomas Wakley, Esq. Perfect recovery in both patients. These cases exhibit the most extraordinary proofs of the safety and value of the use of ether vapour in operative surgery," &c. &c.

This advertisement appeared in the *Times* of Dec. 21 as a paragraph, headed by the word "Advertisement." Its publication followed in other succeeding numbers, and six days after it was duly inserted in *Douglas Jerrold's Newspaper*, again as an advertisement. Through seven days—the days following Liston's death—coolly, deliberately, and systematically, did the professional gentleman who had an object to serve by this business-like and *astutely* worded advertisement, keep "these extraordinary cases" of "operative surgery" before the public eye. While we noticed them with a smile, thousands in the profession beheld them with indignant and irrepressible disgust, and letters, counting by scores, evinced a strength of professional feeling which extorted from our contempt a notice it would gladly have been spared.

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But the defence! At that time the thing was notorious and in every body's perception and memory: what, therefore, did the parties? They justified the ill-doing! They were "proud," nay, they were "happy" to avow their "connection" with it! It was what they had done for "other surgeons," and if it were not for the ill odour of *a certain* name, nobody would have noticed it!

Now, this was plain and intelligible;—the accusers were to be "bullied" out of countenance by a big voice and a Bob Acre manner. There can be no doubt that with "any other name 'twould smell as sweet" (it could hardly smell less so); but even if the name were no worse than that of Smith, or Jenkyns, or Simpkins—merging the obscure vulgarity of one name in the vague harmlessness of the others—the fact, we submit, would be still prominent, that for such an evil, so committed, and by such a criminal, the defence could serve but as an aggravation; for it shuts our eyes to the ill doings themselves only to open them more widely to that greater phenomenon—the moral obliquity it implies. It is one thing to violate grossly the professional code—it is another grossly to sanction that violation; but the climax is not reached till all this be done by a medical journalist in the face of day, and done in such a way as to show that, while careless of right himself, he is unconscious or careless of what is held right by others.

This defence, however, was hardly completed and published before the spasmodic access of valour it implied disappeared, and to the boastful defence and justification now succeeds the petty—miserable—and lying denial.

What a fortnight ago the party was "proud and happy" to avow, on Saturday last he declares never took place; nay, it is coolly added, that the advertisement is a "fraud and forgery," for which legal proceedings are to be taken!

Have men patience for such a system of defence as this—a system which it would be a calumny to place at the doors of the Turpins—the Jonathan Wilds—or the other inmates of a felon's cell?

Is the advertisement a thing so unknown? Do the newspapers not tell their own tale? Does the bold justification suggest a point for doubt? In what excesses, then, of audacity and mendaciousness must those persons deal who, with men of reason and honesty for their witnesses, stigmatize as forgeries to-day the notorieties which were matters of "pride," profit, and self-congratulation yesterday! They draw bills—accept them, get them into circulation, turn them into money, boast their "pride and happiness" in being connected with the transaction, and, when time turning, an account is demanded, their satisfactory answer is—"Fraud—forgery—we mean to proceed legally against the parties"!

Unfortunately the same *bureau* offers more than one instance of this, the most barefaced system of defence and attack, we do not hesitate to say, known in or out of Newgate. Dr. Dawson was attacked with violence as being, truly or untruly, an unprofessional practitioner. He retaliated by legal proceedings. To abject private solicitations was added, in the *Lancet*, as abject an apology as was administered in the House to Mr. James Loyd. The end was gained: the proceedings were stopped—and the *Lancet*, after a due interval, of course resumed its abuse. In self-defence, Mr. Dawson republished, from the *Lancet*, the apology *verbatim et literatim*. What does the just—the honourable—the gentlemanly editor of a professional journal? What does he! He denounces the "apology" as a "fraud and forgery!" "No such thing appeared in the *Lancet" of such a date*—the editor *making* or knowingly using a *false date!*

Not to fatigue a patience exercised on such repulsive facts, we will not go beyond a *third* illustration.

Under circumstances which may yet resume their force, we published, three or four years since, *verbatim et literatim* from "The Annual Register," the report of the action between the member for Finsbury and the Hope Insurance Company. In the next week what did our contemporary? Precisely as with the abject apology to Dr. Dawson—and precisely as with the "extraordinary proofs" and "successful operations:"—it was "a malicious *fabrication*"! "the moment the *report* was seen it was put in counsel's hands," &c. &c.!!

Now, are we to go on tolerating, encouraging a system of falsehood so comically detestable—a kind of pirate-journalism in which the black flag is everlastingly waving against everything having the appearance of truth, virtue, and fair play? It is not for us—it is for the profession to respond! All we will say is, that no man's character is safe, nor any commonwealth healthy, while such things may happen with impunity.

GOVERNMENT MEDICAL REMUNERATION IN IRELAND AND CANADA.

The members of the medical profession in Ireland, though they have apparently received a check in their efforts to secure a fair remuneration for their arduous services, by the cool effrontery of the Government, and the desertion from their ranks of some influential physicians and surgeons, yet exhibit an indomitable spirit. Their praiseworthy efforts are still continued, and, though not yet crowned with success, excite the sympathy and admiration of their brethren on this side the Channel. While the labours of medical men continue as arduous and as perilous as ever, they are compelled to risk their lives and sacrifice their time for the pitiable sum of five shillings per day. Death still continues to make havoc amongst their numbers, through the instrumentality of fever; and the bereaved condition of many widows and orphans has produced a powerful impression on the public, which, by subscriptions on their behalf, has rendered them some assistance in the midst of their distresses, and at the same time administered a sharp rebuke to the heartless conduct of Government officials.

In the midst of these calamities, which press so heavily upon our Irish medical brethren, the authorities of Dublin Castle have been hard at work to perpetuate the wrongs which they have been instrumental in producing; and for this purpose they have promoted some of the members of the Board of Health to posts of honour and emolument, and have introduced others into their places who at one period were forward to condemn a parsimony as unjust as it is injurious. Sir R. Kane has for some time ceased to be a member of the Board of Health, and his place is now occupied by one who, in the early struggles of the protesting physicians and surgeons for honourable remuneration for services performed, smiled approvingly upon them. Thus it is that a love of honour and of emolument has prevailed with some over the better feelings of humanity, and has enabled the Irish Government to resist to the present moment the righteous demands of a laborious, benevolent, and courageous body of men.

It is clear, however, that the high official personages at the Castle rest their hopes of ultimate victory over Irish physicians and surgeons, by fomenting divisions amongst them. The profession of the United Kingdom has ever been viewed as exhibiting the same characteristics as the ancient Grecian commonwealth. The various states of which this was composed, when united, were able to conquer their most powerful enemies; but, jealous of each other, their energies were too frequently employed to effect their own destruction; so, in these modern times, the commonwealth of medicine has been prevented occupying a right position in society, from the selfsame causes which operated so injuriously against the classic and warlike Greeks. Hitherto the Government has fought its battles against the profession with medical mercenaries, and so long as these can be found in sufficient numbers will the Executive laugh to scorn all protests and remonstrances. We fervently hope a better state of things is beginning to prevail, and that ere long we shall see no more of those defalcations which have rendered the profession a rope of sand.

There is no doubt that in Ireland a healthy feeling is beginning to be exercised, but as yet it is not extensively developed. The memorial from Sligo, signed by twenty-seven of the most eminent medical practitioners of the county, and the meeting at Cork, powerful from its numbers and the unity which prevailed, are encouraging proofs that the day of redemption has already dawned. These demonstrations have only to be multiplied to hasten the wished-for event; and the names of those who are leaders in so benevolent a movement will be handed down to posterity as the benefactors of their profession and the friends of humanity. It may indeed be pleasant for the members of the Board of Health to bask in the sunshine of Government favour; for this they have willingly become the tools of statesmen in office, and have suffered them, under cover of their names, to perpetrate acts of injustice and insult which non-medical officials would never have dared to attempt upon their own responsibility. The members of the board may now enjoy the approbation of the viceregal court, but the indignation of their professional brethren greets them from without, and will cleave to them with the same tenacity as the leprosy did to the mammon-loving Gehazi.

In the Sligo address to Dr. R. J. Graves, the Board of Health has received a severe handling, and it is only a foretaste of what it must expect when the day of retribution comes. "It is not a board," say the memorialists, "so constituted that medical gentlemen can look with hopes of its efficiency in times like the present—they look not to men who, from their extensive private engagements in the profession, have not an hour each day to spare to the necessary business of such a board—men who, from their association with the profession, must necessarily be exposed to the temptation, or at least the imputation, of exercising invidious predilections. They look for practical, efficient men as necessary constituents of a Board of Health—men whose individual attention should be given to the business they undertake—men who would *firmly dictate* proper rules of conduct, which no government *could* refuse to sanction and adopt—men who, if their conscientious suggestions were rejected, would at once cease to act incon-

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scientiously, and resign office rather than do so. A board of such a nature, looking each upon himself as a trustee for the health and well-being of the sick poor, would act in such behalf as its members would each in his own personal illness do, by providing the most respectable and capable advice they could obtain—advice which they could honourably approve and honestly reward, and never would attempt to stamp the opprobrium upon their own profession, that men of high celebrity therein could be found offering a bonus to incapability by becoming Jew brokers, dealing in a merchantable commodity, and ingeniously attempting to overreach their younger and more necessitous, but not consequently less competent and meritorious, brethren; but, alas! for the apologetic friends of the present board—*this* is the very contemptible position to which they, in the public prints, have essayed to sink it."

How different is the language addressed to Dr. Graves, the friend and advocate of the Irish medical profession:—

"To you, then, dear Sir," say the memorialists, "we tender our special thanks—you, who have advanced from your high ground (with the honourable exception before mentioned), leaving your many confreres, who have attained a similarly dignified station, silently to repose therein, in the total desertion of the respectability of that profession by which they have attained such an elevation, in total forgetfulness of the arduous means by which they have reached it, and neglectful of the duty which with them should have been paramount—the duty of holding forth a protecting hand to their future successors, who look to their example as the best security of their rewards, are endeavouring (but still weakly) to tread the same honourable path in their precarious onward course. We are quite confident, dear Sir, that you will yet have the gratification of knowing that your conduct on the present occasion (if the members of the profession remain but true to themselves) will finally be productive of its anticipated result; and we trust the sentiments which we have approached you to express will quickly be re-echoed to you from every quarter of the kingdom."

But the injustice and inconsistency of the Government towards the members of the Irish medical profession appear still more conspicuous when we contrast their pay with that which the Canadian medical officers received for their attendance upon fever patients. These have been paid at the rate of two guineas per day, while those are only allowed five shillings. It has been recently determined, however, that the salaries of the Canadian medical officers shall be reduced to twenty-five shillings a day. This proceeding has justly excited public indignation, and the *Toronto Herald* remarks, "It is perfectly clear that, for the discharge of their severe and hazardous duties, the fee, as originally allowed, of £2 per diem, was certainly *not more than a fair equivalent*. And it seems to us peculiarly hard that now, at the last hour, when the violence of the disease, as we may hope, is in some measure subsided, those practitioners who have exposed themselves to the infection at its worst state, and have borne the burden for so long a time, should be forced to resign by what they reasonably consider to be undeserved treatment."

We rejoice in the fact that the colonial press has thus stood forward on behalf of the members of the medical profession, and we consider it an act of injustice on the part of the Government to reduce their salaries after they have engaged in such arduous and perilous labours. But why, we ask, is such a difference made in rewarding our brethren at home and those abroad? The skill required to be exercised, and the danger incurred, are the same on both sides of the Atlantic, and yet how different the scale of pay which is adopted! We can only account for this from the fact, that in Canada no Board of Health exists, having physicians and surgeons connected with it mean enough to truckle to the parsimonious requirements of the Government.

We hope our Irish medical brethren will never relax their efforts till a full measure of justice be done them; and we bid them godspeed in their noble undertaking.

THE POOR-LAW MEDICAL CONVENTION.

The Committee had a conference with the College of Physicians on Tuesday last, and are to meet the Society of Apothecaries this day (Friday) at half-past two. It is expected that reports of these conferences will appear in this and the other medical journals of next week.

MR. WARDROP'S WORK ON THE HEART.

The first part of this important work appears with the present number, and our readers will now be able to adjudicate on the encomiums which we have passed on it as one of the worthiest offerings which our profession has ever made at the shrine of science and of elegant literature.

We propose to give, weekly, eight pages, with sidenotes, as shown elsewhere (equivalent to two *sheets* of small octavo), without any intermission, to the conclusion of the work. It is thought that this plan will be more agreeable to our readers than publication in larger portions fortnightly.

The title-page and contents will be published with the last part.

THE PROFESSORS OF THE LONDON UNIVERSITY COLLEGE.

[To the Editor of the Medical Times.]

Sir,—On cool, sober reflection, and laying aside all the contradictory opinions of prejudiced individuals, it must be admitted that, in the elections of the different professors since the foundation of the institution, the Senatus of the London University School have acted on a wide and broad principle, the result of which has been most satisfactory; and, comparing the mode they have adopted in choosing teachers with the practice of the other medical schools of the metropolis, there leaves not the smallest doubt of that which is the most beneficial.

The London University School has had a list of medical professors, and time has shown with what judgment they were elected. The names of Bell, Grant, Quain, Sharpey, Liston, Elliotson, Turner, and Davis, are all well known to the scientific world, and they were all appointed after their reputation as teachers had been established: an insuperable advantage in such selections, because, whatever faith some may place in the French method of bringing forward the candidates at a public *concours*, it cannot be for a moment compared to the certainty derived from appointing a man who from his years and position has already shown himself to possess the requisite qualifications.

In the Borough hospitals, St. Bartholomew's, St. George's, and all the other schools connected with hospitals, the chairs are filled by sons, and sons-in-law, nephews (dare we say nieces?), cousins, and by individuals with whom the ruling powers have some direct or indirect connection; and they have been elected at a period of their lives, too, when none of them could have shown competency, however many of them had shown incompetency, for the task they had undertaken. One consequence of this system of favouritism is, a great dearth in the rising generation of men of talents in the metropolis, and, were we obliged to give the name of any individual in all these different schools to fill up the chair of surgery at either of the universities, we should be much at a loss on whom to fix.

The principle, therefore, of the London University School, on the occurrence of any vacancy, searching assiduously for the best man they can get, it matters not from whence he shall come, has, undoubtedly, enabled them to form an infinitely better school than those establishments that have acted upon a different system of election: and we think it extremely probable, that from the number of medical schools that have of late years been established throughout the British empire, highly-qualified teachers will spring up, from amongst whom individuals will be frequently selected to fill some of the medical and surgical chairs in the schools of most repute in the metropolis.

No little credit is, indeed, due to the London University Senatus for contriving to induce teachers to join them who, I should have thought, were likely to spurn at the idea of accepting such appointments; the salary of the surgeons of the hospital being only £150 a year—a pitiful recompense for all the labour and anxiety which the duties of such an office necessarily involve, and affording one of those far too numerous instances of the members of the medical profession accepting offices and performing duties for a pecuniary consideration much less than is at all compatible with justice, and with the usages of all other professions. I will venture to affirm that a "dispensing chemist," making up pills and draughts behind his counter, will earn twice as much money in the number of hours that a surgeon is daily employed in the London University School, than the miserable pittance given to a Liston or a Syme!

P. P.

DRS. WILLIAMS AND WATSON AGAIN.

[FROM A CORRESPONDENT.]

Those who wish well to the respectability of the medical profession, and those especially who are at all interested in supporting the dignities of the College of Physicians, must sincerely rejoice that the correspondence of Drs. Watson and Williams has apparently closed; and Dr. Watson's reply to Dr. Williams's accusations will, it is hoped, be deemed a satisfactory apology for his conduct.

As a whole, the correspondence certainly offers a deplorable example of the professional etiquette of the fellows of the Royal College of Physicians to the rising generation, and the "letters" are equally disreputable as literary compositions. In this respect there is a striking family resemblance in the productions of both these eminent professors, and neither of them exhibits that classical taste for which the "fellows" would wish the public to estimate their literary acquirements.

But what ought most to interest the profession in this personal squabble is the exposure it has made of the serious mistakes which are made, not only by one or two, but by no less than five individuals,(a) all and each of whom have written upon the subject, and endeavoured to uphold auscultation as one of the most sublime discoveries for detecting the true nature of diseases of the chest. Now, it so happens that the unfortunate case of Mr. Liston is not a solitary example of the fallacy of physical signs. Since that case has been made public, day after day brings under our notice mistakes and blunders of equal magnitude; and it is assuredly full time that the subject should be amply and fairly discussed.

Of these examples of fallacious diagnosis we may allude to one in particular, which has been communicated to us. The wife of a respectable medical practitioner had a disease of her lungs, and, although she had every symptom of pulmonary phthisis, a question arose as to whether or not there was a cavern in one of the lungs? and, to ascertain this, her husband was urged to get her chest examined by two stethoscopic physicians, one of whom pronounced, after all the "pedantic solemnity of a stethoscopic examination," as it has been justly denominated by Dr. Copland, that she had a large cavern in the lung, and the other auscultator pronounced, with equal positiveness, that she had no cavern! Soon after, the patient died, and a large cavern was found in the substance of the left lung. It is remarkable enough that the physicians who were consulted were two of the eminent men who attended Mr. Liston!

DR. R. LEE.

[To the Editor of the Medical Times.]

Sir,—In your journal of the 15th inst. you state that "The council of the Royal Society, having been grossly assailed in the leading article of one of our

(a) Drs. Williams, Watson, Forbes, Latham, and Stokes.

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contemporaries, on the unfounded allegation that they had 'blackballed' a recent paper presented to them by Dr. Robert Lee, we think it our duty to publish the following document in vindication both of the council and of the Committee of Physiology. The assertion that the paper in question was rejected has been industriously circulated, and it has been suffered to remain uncontradicted by Dr. Lee himself, although he must have been aware of its being untrue, because it was at his own solicitation that the council permitted him to withdraw it before they had discussed the question as to the propriety of publishing it.'

Yesterday I ascertained that Dr. Roget, the senior secretary of the Royal Society, if not the author of these remarks, in which a great part of the truth is suppressed, carried the anonymous document, called "Report of Dr. Robert Lee's Paper, entitled 'On the Ganglia and Nerves of the Uterus,'" which appeared in the *Medical Times* and *Medical Gazette* on the 15th inst., to the printing-office of the latter journal, and caused it to be printed without the sanction either of the Committee of Physiology or council of the Royal Society. A secret and confidential report on a paper which I had requested the council to postpone the publication of until the drawings were completed and corrected, has been copied by Dr. Roget, or by some person under his control, carried to the printing-office of the *Medical Gazette*, and printed without the sanction of the council of the Royal Society, with the above remarks, equally false and injurious to me.

The observations in the *Lancet* above referred to by Dr. Roget, it is known to the whole profession, were chiefly made because the council had actually blackballed the last paper sent by Dr. M. Hall to the Royal Society. In vindication of the council, why did not Dr. Roget publish at the same time the report of the Committee of Physiology to the council, which led the council to refuse a place in "The Philosophical Transactions" to Dr. Hall's paper, which was not withdrawn by him. The vindication of the council and Committee of Physiology is most imperfect and most impotent, and has been made in a manner implying a gross breach of official trust, which the council is bound to inquire into.

I have already stated in your journal, and beg leave to repeat in the most distinct and unqualified terms, that I have never written one word anonymously in the *Lancet*, or in any other journal, assailing the conduct of the referees on my paper, and now you will understand that I will not be held responsible for anything that is published without my name.

I beg leave also again distinctly to state, and trust no person will ever question my veracity upon this point, that I twice requested that a contradiction might be given in the *Lancet* to the assertion which the editor had made, believing it to be correct, that my paper "On the Nervous System of the Heart" had not been blackballed by the council, but that its publication had been postponed at my request. In compliance with the desire of the Marquis of Northampton, expressed to me during an interview with his lordship, I sent to the editor of the *Lancet* the abstract of my paper in the printed proceedings, with the letter to Professor Christie inserted in your journal last week, with the desire that they should be published. The request, which I made and repeated a second time, has not been complied with. It is quite unjust to accuse me of want of veracity and honour, when I feel that all my proceedings have been conducted with the most jealous regard for truth and veracity.

I am, Sir, your obedient servant,

ROBERT LEE.

4, Saville-row, Burlington-gardens, Jan. 25.

[We cannot wish our two contemporaries joy on the position in which Dr. Lee's letter places them: the one involved in a charged breach of confidence, the other refusing to retract proved and admitted calumnies.—ED.]

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Continued from page 287.)

DIFFICULTY OF OBTAINING APPRENTICES.—Therefore the apprenticeship system may, if rightly carried out by honest men on the one side, and diligent young men on the other, be a beneficial control to the young men, while, on the other hand, it does not necessarily interfere with their reputation in the higher branches of the profession, irrespective of the art of compounding medicines. But I suppose it would be right to observe that the complaint is very general that no apprentice can be procured now, that it is a thing which seems to have been tacitly very much given up. Apprenticeships are, in a great measure, nominal now, I believe. In my answer to a former question I assumed that the apprenticeship is not nominal, but I take a young man who has come from an apprenticeship of five years, and I compared him with one who has been at the univeesity; their respective qualifications and preferments. Yet the education of the young man at the university does not necessarily involve an expenditure of at least double that which the apprenticeship system would involve in the case of the other young man, and, therefore, you could expect that an equal number of young men should go to the university, as go through the apprenticeship system, considering merely the relative expenses of the two. Apprentices cannot be procured by surgeons or by general practitioners. There is a difficulty in hospital surgeons procuring apprentices; but I understand it is the same with respect to general practitioners in the country, that they do not get apprentices as they used to do. But I am aware that it is peremptory with regard to the Act of 1815, and that the young man cannot legally undergo his examination at the Apothecaries' Hall unless he has passed an apprenticeship of five years; still I am led to understand that the apprenticeship is in many instances a nominal business. I have no reason for believing that the Society of Apothecaries have evaded the law; I really know so little about it that I would not undertake to say that. I am very willing that it should be put down as my impression that an apprenticeship is little more than nominal; but what the Society of Apothecaries have done I must leave them to explain. With respect to an apprentice to a surgeon of a hospital, or to a hospital, for they are registered in our hospital, and are recognised really as belonging to the hospital, though apprenticed to a particular surgeon; a young man of that kind has every opportunity, if he have diligence, of studying his profession from the beginning of his apprenticeship to the end. He has the opportunity of studying pharmacy; and he has the run of the dispensary; but he must pay for it. Supposing that a few very great men by their own powers may have risen to the top of their profession, even if they were apprentices to apothecaries, that would not shake my conviction that an early education is what the mass of the general practitioners now requires; but I do not wish to mislead the committee. The defect in the apprenticeship, as I have had occasion to observe, of the general practitioners is, that they have left school very early, at fourteen or fifteen it may be; that they have spent the next five or six years (I forget now exactly the time) with a country apothecary or general practitioner, and that, as far as I have had occasion to make out, that period which they have spent with the general practitioner has been in very many instances without profit; that they have had no opportunity of continuing their studies, which have been very short at school, and that they have learned nothing fresh.

DEFECTIVE GENERAL EDUCATION OF STUDENTS.—My experience bears out that the large number of students who attend lectures have a most imperfect knowledge of language; yet I think that a real education in the principles of language is quite essential to enable a man to apprehend scientific truth in lectures. In many instances I have found young men incapable of spelling, and therefore very ignorant of their own language; and as for classical languages, I believe they know little or nothing of them. I believe that under the circumstances which I have mentioned, their ignorance of language, they would be incapable of comprehending a considerable part of the lectures which were delivered to them; I have found it to be so to a great extent. I attach very great importance to a good preliminary education for medical practitioners. And I believe that preliminary education is the best foundation for establishing in their minds a perfect knowledge of scientific facts.

THE TWO UNIVERSITIES, AND STUDENTS FOR THE SURGICAL FELLOWSHIP.—I think it would be desirable, for the education of surgeons in the higher branches of their profession, that they should receive their preliminary education at the English universities; there are not any practical impediments to their doing so now. During the discussion of the question in the council of the College of Surgeons as to the preliminary education required for fellows, I wrote to some gentlemen connected with both universities, and found that by a little management it would be very possible for the students to take the degree of bachelor of arts at either Oxford or Cambridge consistently with the completion of their education as surgeons. I am acquainted with the ordinary requisites for a bachelor of arts' degree at Oxford or Cambridge now. It is my opinion that arrangements might be made by the universities, so far as I am acquainted with them, which would enable medical men to devote a portion of the time which they spend at the university to scientific pursuits, having a bearing on the formation of their minds, and at the same time having a direct tendency to prepare them for their profession. I have not thoroughly considered the subject; but it is very obvious what those branches would be. I take it, chemistry and what relates to natural science—botany, and so on; physics. I am of opinion that if a young surgeon were to devote his third year at the university to the deep study of chemistry, it would combine the double object of scientific university education and preparation for his profession, consistently with both objects. I am not very well acquainted myself with the system of the universities; but, during the discussion which we had with regard to the education of fellows, I wrote to several gentlemen connected with both universities, Dr. Whewell and Professor Sedgwick, at Cambridge, and two or three others, and at Oxford, Dr. Kidd, and one or two more; and, as I understood them, it was quite possible to combine with the education for a fellowship, that is to say, for a fellowship of the College of Surgeons, the accomplishment of a degree as bachelor of arts; but for a person who gave the third year of his college residence to the profound study of chemistry, botany, and other things connected with medical science, to make a distinguished figure in either university, relates to something very different. Chemistry and botany are not subjects, I am aware, of examination for a degree of arts. I cannot say that I ever heard of any instance of any young man who, commencing his professional education, either medical or legal, while he was at the university, made a distinguished figure in the competitions at the university. I am not aware that at the present moment, if a young man chooses to take up the subject of chemistry for examination in *disciplinis Mathematicis et Physicis*, he is at perfect liberty to do so at Oxford, and that the examiners must examine him in it if he does.

COMMON EXAMINATION FOR ALL.—I stated that I was anxious that all the members of the profession should enter at one portal; and I subsequently said, that what I meant was, that they should enter at one gate, and should proceed in different roads afterwards; that I thought that the preliminary examination might be sufficient for the general practitioner, and that there should be distinct examinations subsequently for those who were to practise as surgeons and those who were to practise as physicians.

ON WHAT SUBJECTS CANDIDATES SHOULD BE EXAMINED.—What I consider should be the subjects of examination of the general practitioner, and the course of education which he should pursue, are anatomy, physiology, and surgery; the theory and practice of medicine; you may say the principles and practice of surgery, pharmacy, materia me-

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dica, chemistry, and midwifery. Medical jurisprudence I should scarcely consider necessary to make a distinct head. I think the courses on chemistry, and pharmacy, and so on, should form parts of it, certainly, and likewise botany. I want to get rid of as many lectures as I can, and get them to a more practical education. I consider, in fact, that the students are over-lectured; that they have to pay for more than they can possibly attend to. Then I consider that they should be subjected to an examination on the subjects which I have now named; and that the examination should be not less searching than the one which is now instituted at the College of Surgeons for members, and, I suppose, at the Society of Apothecaries, but that I know nothing about. You would require, probably, four examinations; I think that would include all, and the different subjects. The examination which I have now described is one which I would have all the members of the profession undergo; I have no reserve about it; you may take me quite at your own meaning, so far. Having undergone that examination, I consider that the individual should then have a right to practise generally. As a physician he would practise in necessary course, but he would not have the title, distinctions, or other privileges which may be connected with the grade of a physician. But, as regards surgeons in general practice, I consider that the public would be safe if there were such a class of practitioners as had undergone successfully the examination which I have now described. Then, subsequently, if a man wished to take a higher position, or one which I consider would be characterized by more scientific attainment, and wished to practise exclusively as a surgeon, I would add to the examination which I have now described the one for our fellowship.

Difference in the Fellow's Examination.—Then he would be examined upon the same subjects, that is to say, anatomy, physiology, and surgery; he would only be examined upon those; and, in addition, proof of a preliminary education would be required. The examination in the last case I would carry as far as possible, as far as the limits of science would permit. Whatever was the highest state of science would be the requisite standard to which a fellow of the College of Surgeons should come up; I mean as far as the boundary of facts would admit. We do not examine in speculative theories, excepting so far as they may be involved in facts. I am sure that that second examination would afford to the public a better security for having a better practitioner than the first. I do not always find that the man of the highest scientific attainment is the best practitioner; not at all. Then the security would not be a general one; but the first examination, which I should conceive ought to be tantamount to that of what is now called a member of the college, is not required to be so searching or so extensive an examination; you could not apply it; the first examination, which I should consider would be the same as that for a member of the college, could not be so searching or so extensive as that of a fellowship. You could not expect persons at the period of the first examination to be as highly qualified as they would be likely to be afterwards. You cannot secure what may be called absolutely competent practitioners; they could not be in all respects competent, for instance, to perform all the operations of surgery: I mean the great body of the members; it must require experience afterwards, and extension of knowledge beyond that which we can require of them. Any system of education that we could adopt would not secure to the public that all medical practitioners should be good operators: there are some men who from want of the physical requisites will never make good operators. I have myself known young men of the highest attainments, and most industrious in their hospital studies, who, when they have been called upon to perform the duties of hospital surgeons, have altogether failed; and that can never be clearly foreseen by any system of examination which we could adopt.

Registration Bill, Schedule (C.).—In my last examination I said that the registration under this bill, that is, the bill of the present session, "is a registration such as ought not to be the standard registration for England, because it does not inform the public what the qualifications of the persons registered are." At that time I had examined the schedule of the bill in which the mode of registration is described. My answer certainly wants a little explanation. I see that, and saw it when I read it. In the first place, with respect to the registration in Schedule (C.) there are two lists. Now, really I am not sure that I understand the use of the two lists, but I presumed in my answer that that second list, in which the qualification is not mentioned, would be the one which was generally distributed to the public. I did not understand that they were both to be in one register, because that would certainly obviate part of the objection which I entertained when I made the answer which I did. I observe in the schedule that they are registered in columns. I now discover that the first column exhibits the name; the second column the qualification, with its date, and whence it was derived, showing whether the individual is a member of any College of Surgeons in England, Ireland, or Scotland, or a fellow in the College of Surgeons, or a fellow in the College of Physicians. I consider that a more fair arrangement could be adopted; a classified registration would be preferable: that is, registering physicians exclusively under their title, and surgeons under their title. Those who held four or five qualifications would be registered several times. I do not think that that would be a very complex arrangement. We could very easily give such a registration from our College of Surgeons; the physicians could give theirs, and the general practitioners likewise would give theirs. Looking really without prejudice at that arrangement, I would not say that I can discover anything unfair in principle in it; but at the same time I think, if you have one list simply with the names and the places, without the qualifications, there is a tendency to remove the evidence of what they really are. If the qualification were set down in the topographical arrangement as well as in the other, the main objection would be removed. I think a classified registration would be better, but I might say that my objection would be removed; but, in saying that, still it will be observed that by this Medical Registration Bill a person who is only qualified as a general practitioner is considered to be legally qualified for holding the office of a surgeon. All the former acts of Parliament are done away with, and if, as I understand this bill, you are upon the registry, you are then qualified to obtain a legal appointment as surgeon; you may be surgeon to a union, you may be surgeon to a prison, you may be surgeon to St. Bartholomew's Hospital, and, in fact, obtain a surgical appointment however high, or however important. There is no law at the present moment to prevent a linen-draper from being appointed surgeon to St. Thomas's Hospital; no statute law of the realm; but such an occurrence is prevented by the good sense of the governors, and by the private and internal regulations of the hospital; but by this act he would acquire a legal qualification. He has got it now at common law if he be elected; there is no statute law to prevent it, but still he is not recognised as a legal practitioner. But, with respect to unions and prisons, there is a legal qualification required, and that you do away with: they must be members of the college. I am quite aware that that is only dealing with the materials which we possess at the present moment. If you were to register the profession in classes, you would register the members of the College of Surgeons who are practising as general practitioners, as surgeons, but they would likewise be registered, of course, as licentiates of the Apothecaries' Company; they would appear twice. In the discussions of the council relative to the Medical Registration Bill, the council did not express any desire that any members of the council should be examined before this committee; and they named no members for that purpose.

(Sir Benjamin Collins Brodie, Bart., F.R.S., called in, and further Examined.)

Suggestions for Improving Medical Education.—In my former examination I was asked whether, having maturely considered the subject of medical education, there were any suggestions which I had to make to the committee, with a view to rendering it more effectual by legislation, and my answer was that it was a wide question; that I was not prepared to answer it without consideration, and I said that I would give the committee an answer at a future day if they wished it; I have considered the subject since my former examination, and I think there is one great improvement which might be made—that is, that the examination should be divided into two parts; that the students should come up for their anatomical and physiological examination at the end of one period, and for their practical examination in pathology and surgery at the end of another more distant period. I have no doubt that this would be a very great improvement indeed. I do not recognise any as students but those attending the schools and those who are registered at the college. I have not made up my mind at what period I would make them come up for the first examination, whether at the end of a year or a year and a half; at the end of two seasons, probably. This change would go a great way towards preventing the sin of "cramming;" and that practice I regard as a very great evil, certainly. I think, so far as our college can do so, they have endeavoured to prevent it. The examination is very practical, and the more of a practical character it assumes, the stronger is the check against the system of "cramming."

Recognized Hospitals and Schools.—We allow students to go where they please, the schools having proved that they have the fit apparatus for teaching. We do not admit an anatomical school which does not prove that it has a proper museum, and we do not admit an hospital unless it has a certain number of beds; we may be misled in those matters sometimes; I dare say we are so. While we allow the public to go where they please for medical advice, we do not allow the students to go where they like for surgical knowledge; because under the name of schools there would be a great many places which were not schools at all, but mere places for "cramming." And we consider that the student might be defrauded by representations in such places and by such persons. I think that the public might be defrauded in the same way by the pretensions of an unqualified practitioner; but, if the Government give them a list of qualified persons, it is their own fault if they are defrauded. They need not be defrauded if they do not like to be so. The same arrangement might not be made with regard to the schools, thus leaving the teaching of medicine completely free. I have not much considered that question. It appears to me desirable that there should be the proof of a school having the means of teaching. We recognise no hospital with less than 100 beds, which is in fact a small number. In hospitals containing only fifty beds they would not have the means of knowledge; they would not have a sufficient quantity of facts. In a hospital containing 100 beds there might be three surgeons, and in an hospital containing fifty there might be only one, and if the surgeon of such an hospital had only a few students to attend to, and applied his mind vigorously to their instruction, he might render them much more competent to undergo an examination than in other institutions where there were more surgeons, and the students were more crowded, if surgery were a science in which there was merely a given number of established principles for our guidance; but the greater part of the knowledge that the surgeon requires consists of a detail of facts, which cannot be obtained, I apprehend, in sufficient quantity and sufficient variety in a very

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small hospital. The best surgeons whom I have known have been those who have attended chiefly to hospital practice. Very few can have sufficient surgical experience except in the wards of an hospital to make what I would call accomplished surgeons. The hospital is the great theatre chiefly in which operations are performed; but it is chiefly for other reasons. Large hospitals are better than small ones. At St. George's Hospital, as long as I was surgeon to it, there were no periodical examinations; but there was that which is a great deal better, a constant communication of the surgeons with the pupils at the patients' bedsides. Without an examination I could know that the student has derived advantage from his observations, because I used very frequently to ask them questions, and they used to ask me questions, and I thus learned what kind of knowledge they had. There was a great deal of conversation, which must include questions. That is a great deal better than regular examinations, in which, after all, even in an hospital, there may be a certain amount of "cramming." This system may creep in even there to a certain extent, because an industrious pupil may be good-natured, and tell an idle pupil what answers to give.

The College Examination.—Mr. Green has said that the College of Surgeons require, with respect to medical education (that portion not strictly surgical), attendance on the practice of medicine, chemistry, materia medica, and midwifery. It is so. But we institute no regular medical examination. Of course, all surgical examination must include a certain quantity of medical examination, because a great part of the surgical diseases require medical treatment. I consider that, by our previous charter and our existing charter, the charter of 1843, we have the power to enforce a compliance with such regulations from our candidates as we have now made. I will not say how far we have legally the power. I believe we had an opinion upon that point, and it was rather doubtful how far we had legally the power; but public opinion is entirely with us, and I think public opinion is as good as the law upon such a subject. I believe the plan is approved of generally. I am not aware that we ever took an opinion of counsel as to whether we have power to institute an examination on medical subjects; such, for example, as the theory and practice of medicine, materia medica, and pharmacy. I think there would be this difficulty in extending our examinations upon those subjects, that, in order to have a perfect examination, we ought to have some of the most accomplished physicians in London, whom we have not got. We might have some present with us as assessors if the system of the college were entirely altered, and it were made a college for all purposes, but not under our present charter. I do not think it would be so much to the advantage of the public as our present system. I think that the subjects which medical practitioners are required to understand are so extensive that it is very well that the examination should be divided. But it would be a great deal better if the different examining bodies were all under one authority, so that they might act harmoniously with each other. It has been a very serious evil to the profession that there was no one body to harmonise the curricula of the Apothecaries' Company and of our college; I mean that the arrangements should so correspond that the studies of one kind might not interfere with the studies of another kind, so that at the College of Surgeons it should be strictly confined to surgery and anatomy, the foundation of surgery.

Demand for a New Incorporation of General Practitioners.—I am aware that there is a demand for a new incorporation. I do not know how far it has met with the sanction of the Government. The Government best know that themselves. I saw the former bills that were introduced in relation to it, which referred to and recognised that arrangement, namely, the incorporation of a college of general practitioners. I forget what were the terms as to the examination of candidates; but I remember that the surgical examination was to be held at the College of Surgeons. I forget whether that demand was complied with; but I certainly considered that that new corporation would rather have taken the place of the examination of the Apothecaries' Company, and that the examination of the College of Surgeons in surgery would have been continued as before. I rather think that the council formally objected to that portion of the title which included surgery; but, indeed, I am not quite certain.

Sir James Graham's Bill and the College Charter.—I do not recollect, when the charter of 1843 was granted, whether any new arrangement was made, or whether any arrangement was contemplated with reference to the introduction into our college of a medical examination. The draught of that charter was done by the legal advisers of the college, with the legal advisers of the Secretary of State, in the first instance, for the grant of a new charter. Application to the Secretary of State was made by the council. It was on the suggestion of the Secretary of State that the application was made by the council. If I remember rightly, the Secretary of State informed the council of the college that he proposed to introduce a bill to make certain changes in the profession, and suggested this as a part of that measure; and that was before any bill was introduced into Parliament. It did come upon many of the council by surprise certainly, but they had plenty of time to consider it. Of course whatever you hear for the first time may be said to come upon you by surprise. But the intimation came from the Secretary of State before any of the council made any application upon the subject as to his proposed measure, of which that was a part. I do not remember whether any suggestion was made by the Secretary of State to the council as to the persons who should be nominated fellows in the first instance; it was left to the college.

The First Selection of Fellows of the College.—The number was merely stated in the charter, without any qualification being specified. I have reason to believe that the selection has caused a good deal of heart-burning amongst the members of the college. All selections make heart-burnings. I dare say that some men of great respectability in the country, and in the profession, were excluded from that nomination; but I believe that the selection was made upon very sound principles, and that it was a very good selection. It was not a selection made hap-hazard; it was made on a system; and upon the whole, considering the difficulty of the task, looking back at it now, I think it was a very good selection. I will give you the analysis; there is an account of the whole, which I had made out at the time (*producing the same*); I was president at the time. In 1844 (I can read it briefly) there were 226 surgeons to public hospitals in various parts of England. There were forty-five lecturers on some branches of medical science, recognised as such by the council; ten were admitted on account of their contributions to the sciences connected with surgery—Mr. Owen, for example, and others; 126 surgeons in the army and navy, and East India Company's service, selected by the heads of their respective departments. Whether that was a right selection or not I do not know; they are responsible for it. There were four senators of the University of London; there were forty-one surgeons in London not engaged in practising pharmacy or midwifery, who were therefore eligible to the council, under the old charter and by-laws, and would have been disfranchised if they had not been nominated as fellows; many of these were surgeons of dispensaries or ophthalmic infirmaries, or held other public appointments. Then there were fifty-nine who were not admitted upon those general grounds, under these circumstances; fifty-nine provincial surgeons, not holding hospital appointments, but regarded as consulting surgeons in their respective vicinities; the majority were recommended by other practitioners, and some of them held public appointments. There was no one in this last list whose diploma was dated since the year 1825. The whole number was 511. There were only fifty-nine about whom there was any difficulty, and as to those fifty-nine we did the best we could to get the opinions of practitioners in the country. One gentleman sent up a memorial from twenty general practitioners in the neighbourhood, desiring that the college would appoint him; and he was appointed as a matter of course. Others were recommended by two, three, or four persons in whom we believed we might put confidence. These were the only cases in which there could be any sort of prejudice or favour, and I will venture to say that on the whole it was done with as great a desire to make it correct as possible. But of course whether you make fellows of the College of Surgeons, or give away orders of the Bath, you will always have a certain amount of dissatisfaction, and it would be very difficult to make the selection exactly just.

Mr. Dermott's Case.—There was one surgeon omitted falling under those different descriptions, a teacher in a school, and I think it was a pity that he was omitted. I do not know whether the profession disapproved of the omission or not. That is the only instance that I am acquainted with of the omission of any person falling under the heads described. Before we made the selection we did not make any general communication to the profession upon the subject, but it was generally known; that is, the charter was known. The members of the college generally knew that there was to be a nomination of fellows, and that they were to be limited in number. The senior members of the college did not know that, if junior practitioners residing in their neighbourhood would send memorials on their behalf requesting their nomination, they would be appointed.

Opinions on the College Charter.—If the constitution of the charter were going to be changed or altered in any respects, there are no suggestions I would make in regard to improvements; I think it a great deal better to keep our charter as it is. It is working exceedingly well, and will in process of time do a great deal of good. I think that the mode of election into the council might be improved; but that, practically, it does not lead to much inconvenience. I consider that the charter has laid the foundation for a representative council.

Meetings of the Council.—The meetings of the council are not open to the fellows or members of the college; the constituent body know how their representatives act, though the proceedings of the council are conducted in secret, by the results; but in fact the council have very few proceedings. The principal matters that the council have to attend to, and which occupy a good deal of time, are the management of the museum and of the library; the council have little else to attend to, the system of education being determined. I think the constituent body know always pretty much how particular members act—that is, by private representation or private rumour; they have no means of publicly knowing. They know the conclusions at which the council come, which are, after all, on very few points. I do not think that there would be any good, for a portion of the fellows or members of the college to be present at the meetings of the council when questions were discussed relating to the government of the college. On the contrary, I think there would be harm in making the meetings public. The members know all that is worth knowing, and when you come to arrange the details of the museum or of the library, and to say how this is to be done, or that is to be done, I think the council can manage those things better among themselves. There are no important questions except those relating to the management of the museum and the management of the library, and the education of the students. If there is a government of the college it is a government where there is nothing to govern except what I have just mentioned. Supposing that there were any unjust regulation as to teachers, if that

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regulation were not immediately known it would be no regulation at all, and therefore there would be no difficulty on that score. The electing portion of the council would not become acquainted with what had been the conduct of particular members of the council, except so far as they learned it from themselves or from other members. They would only know what was the result. They would not ascertain who constituted the majorities and minorities. That would be a defect if there were questions concerning the interests of individual members of the college, but, there being no such questions, I do not think it matters.

Duties of the Council.—I mean to say that the council have no important public duties to perform. I think it is an important public duty to see that the museum is taken care of and also the library; that does not belong to the council of the college, but to the trustees. The trustees know all about it, and the library is not a matter in which other people can be interested except so far as that the library should be accessible and useful. And, with respect to drawing up plans of education, I conceive that not even the profession generally are competent judges. The only competent judges on that subject are those who have been accustomed to teach; and, therefore, I do not see the good that is to arise from the admission of members generally to the meetings of the council. I see one great evil that would result, and that is, that it would interfere with doing the business; and the difficulty with us in regard to that, as is the case with other public bodies, is to get the business done.

Secret Meetings of the Council.—I think the members always know how their representatives discharge their duty; and that the having other people present at the meetings would interfere with the business. I am aware that the public are admitted for the purpose of ascertaining how the business of Parliament is transacted; but my belief also is that in the present case the profession generally have too much good sense to care about it. I think that they would have no desire to be present. I dare say all sorts of desires have been expressed that the meetings of the council should be open. I do not believe that what I call the profession would care at all about it; I mean, that the men of good sense and experience do not care anything about it. I class as men of good sense and experience a large proportion, and a large proportion I suppose means a considerable body of persons. That complaints have been made of the secret manner in which the proceedings of the council have been conducted I dare say, and I think that there might have been some ground formerly, because the council elected themselves for life, and there was no check upon them at all; but now the members of the council remain upon the council for a certain number of years, and then go out of it. The members of the council who were in the council at the time the new charter was granted remain for life; but that is wearing out. I said in my former examination that we had not yet got all the good of the new charter, because the system of election is only gradually coming into operation; but it is the case that, if meetings of the council are held in private or in secret, the electing body will be incapable, except by the results, of knowing how their representatives have acted upon particular occasions, but the results tell them all they wish to know. It is in my opinion a great deal better that the council should, in the discharge of their duty, be independent. I do not say that they ought to act independently of the feeling of the professional body generally. What I mean is, that there is nothing done by the council the results of which are not immediately known. If the meetings of the council were made open and public, the experienced and well-informed and sensible members of the college would not attend them. If any person came, it would be those who had not been able to find any better occupation for themselves, and that would interfere with the doing the business. I do not see that any good would arise from their attending; I think that only harm would arise. Every act which the council does is known, and must be known immediately, if it is to have any effect; then, in the next place, they can make no by-laws or ordinances without the approbation of the Secretary of State; they must be submitted to him, and he may consult anybody he pleases; and in the third place, every member of the council, except the original members, knows that he will another day be sent back to his constituents. I think that that is quite a sufficient check, and that anything more than that would interfere with the business being done without any correspondent good.

Council of Health.—The constitution of the Council of Health is an important question, provided that council is to perform the duties which were specified in the bills of Sir James Graham. On the whole, I approve of the council being appointed by the Crown. I do not say that is the opinion of my brother councillors, or at least of all of them, but on the whole it is my own opinion that it would be better if they were appointed by the Crown. I would make provision as to the description of persons of whom that council should be composed. I think they should be persons from each part of the profession, and also some persons not belonging to the profession. I think that such a council would be useful in many respects to the Government, and also to the profession, and especially useful in making the curricula of the different institutions harmonize. I consider that Edinburgh and Dublin should belong to the same council, and that no difficulty would be experienced by the Edinburgh and Dublin practitioners. If a Council of Health were useful here, such a body would be useful in Edinburgh and Dublin, as well for other purposes as for medical purposes; and there would be councils there, but they would be branches of the London council. I objected in my last examination to the power which, under the bill of 1847, would be given to one registrar, and I stated that I thought that it would be best under a Council of Health. I consider that, for the business of registering practitioners, if such a council were appointed, they would delegate their powers in that respect to a clerk or secretary; but the council would look to it to see that it was properly done. In the first instance, the council would meet in London. The great difficulty would be in starting. The council must meet first in London.

Discretionary Power Necessary for the Council at First.—If a person gave proof of having passed his examination, he would, of course, have a register; but the difficulty would be in the first instance, for a certain degree of discretion must be given to those having the register under their charge. I am aware that in the bill of Sir James Graham it was provided that all persons should be entitled to be registered who are now qualified to practise in any department of the profession, in any part of her Majesty's dominions; but I know that Sir James Graham also contemplated that there should be a certain degree of discretion given to the Council of Health, and that he was aware of the difficulty which I have mentioned. But the bill gave no discretion to admit persons who were not entitled to practise in any departments of practice in some parts of her Majesty's dominions. They would have to admit certain persons; for example, certain physicians and certain surgeons, who have not any licence to practise in this country. Under this bill they would not be admitted, but under Sir James Graham's bill provision would have been made for their admission. I mean that at the present moment two very eminent surgeons of the hospital at Bristol, who are consulted extensively by persons in that part of the country, and others in the same situation, would not be registered under this bill. The words of the bill in clause 3 are, who "shall produce his diploma, certificate, or licence, or other proof of his having obtained a diploma, certificate, or licence to practise as a physician, surgeon, or apothecary, dated drior to the passing of this act;" those whom I refer to have no licence. I am not aware that they could be registered as surgeons. They might be registered as legally qualified medical practitioners, and opposite to their names their qualifications would be shown. That would be one way of getting out of the difficulty, but they would not be registered as surgeons. If the public considered that they ought to attach no importance to their names, on account of their not being members of the College of Surgeons, the public would have the means of ascertaining the fact; but that is of little consequence. What I mean to say is, that under this bill there must be a discretionary power given to the registrar, in the same way as there would have been a discretionary power given to the Council of Health under Sir James Graham's bill; but in my opinion a single person should not be entrusted with that discretionary power. In the first instance it cannot be helped that a discretionary power should be given to the Council of Health; and it is to be observed that that power was to be given to a council, and not to a single individual. And I think they should not have the power to admit persons who have no medical qualification; but the kind of qualification is a question upon which they must exercise their discretion. With regard to registration, they would be merely an executive body after the first, but I should say (and whoever will consider the subject will I know find that I am right) that in the first instance they must have a certain amount of discretion; Sir James Graham knew that, and would have provided for it by some alteration of the bill in committee. At present no physician is legally qualified to practise as a physician who has not an Oxford or Cambridge degree, or a licence from the London college; if that line were strictly observed some of the best physicians in the provinces would be excluded. I would give the Council of Health a discretion to register those two gentlemen of whom I spoke as surgeons certainly; but there are many other instances that I might give. I believe I did give others in my last examination. All that I meant to say was, that under the provisions of the bill of 1847 those gentlemen practising at Bristol as surgeons would appear to be registered as apothecaries. In my former examination I expressed a general disapprobation of the existing bill; I have not any personal interest in any measures which that bill might introduce.

(To be continued.)

A SHAM SURGEON — TRIAL FOR FORGERY AT THE CAPE OF GOOD HOPE.

Edward Thomas Taylor stood indicted for the crime of forgery.

G. J. Russouw, sworn, deposed: Is a clerk in the Colonial-office, and has been in public service twenty-two years; he knows the prisoner by sight; recollects his making application to the governor to be authorized to practise as an apothecary in this colony (a) [application produced and identified; the endorsement on the back is in his own handwriting, as follows:—"Application of Mr. E. T. Taylor to practise as an apothecary—referred to Medical Board"]. Mr. J. M. Craig was at that time the acting secretary to Government; he had often seen him write and sign his name; the signature on that application is his; he knows that the application to the Medical Board was sent on Feb. 23, 1842 [witness read the memorial to be allowed to practise as an apothecary]; this application was sent back from the medical committee on Feb. 24, with a report signed by Dr. Leisching, its president; the report before him bore the signature of the late Dr. Leisching [report read, recommending the permission prayed for]; on receipt of report a letter was written to prisoner, returning him his credentials, together with a

(a) In the official language of the colony of the Cape of Good Hope, apothecary means simply, practitioner in pharmacy similar to our chemists and druggists

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licence to practise as an apothecary, a copy of which he had before him in the records of the Colonial-office [letter read]; the licence handed to him is signed by the governor, Sir George Napier, and by Mr. J. M. Craig, but it has been altered since he made it out; the word *as* is not in his handwriting; it stood where the word surgeon is now written, and the letter *d* has been since added to the word an; the words *surgeon* and *as* are not in his handwriting; these words are not in the handwriting of any of the other clerks in the Colonial-office, nor of Sir George Napier, nor of any other person connected with the Colonial-office; the word *surgeon* is written, *sur-* outside the margin, and the letters *geon* within the margin [licence here handed to the court and the jury; witness pointed out where numerous alterations had been made in this licence as it originally stood].

Cross-examined: The alterations are quite palpable, and any person might see them; the licence as altered stands as licences always do when given to practise as surgeon and apothecary.

H. Hudson examined: Is civil commissioner and resident magistrate of Albany; knows the prisoner; as civil commissioner he enrolled certain burghers last year to do military duty, when certain certificates for exemption were produced to him, signed by the prisoner; he objected to receiving his certificate, being under the impression that he was not authorized to practise as a surgeon; the certificates produced were signed by him as such; in consequence of this objection prisoner produced a document which purported to authorize him so to practise; the document handed to him was the one in question; the same as produced by Mr. Russouw, and which prisoner stated was his authority to practise as a surgeon; that document had not been handed to him before that time, but it was produced in his presence subsequently, at an examination by the clerk of the peace; the prisoner on that occasion made a declaration to him.

Counsel objected to this declaration being received as evidence on that occasion; objection allowed. On that occasion prisoner produced the licence then before the court, and in the state in which it now is.

William Bond examined: Is a bridle-bit and tirrup maker; he recollects, some time ago, prisoner attending his wife; he attended her as surgeon and apothecary; his wife is dead; she asked him if he were a qualified man, and he said yes, he had taken his degrees; an account was sent from prisoner for medical attendance [account produced]; those accounts were received from the prisoner, and part of them was paid by him.

J. J. H. Whiley examined: Is a confectioner residing at Graham's Town; he knows the prisoner; he attended his family last year as a medical man, and an account was sent in to him [account produced]; that account was paid by him to prisoner, and is in the handwriting of the prisoner; the other accounts previously produced are in his handwriting also.

Robert Moore: Is a tailor residing in Graham's Town; knows the prisoner; he attended his son Charles, who had met with an accident; he broke his arm, and prisoner attended him as a medical man; he first went to Dr. Atherstone, but he was from home, and he then met prisoner, and he came directly; he sent him an account subsequently, which account is now in the possession of his attorney, Mr. Stone.

Robert Godlonton, editor and proprietor of the "Graham's Town Journal," produced a file of "Graham's Town Journal" of Oct. 13, 1842, in which, in a dispute between prisoner and Dr. Daunt, the former published as an advertisement a copy of his licence to practise as an apothecary, as follows:—

"Colonial-office, Cape Town, Feb. 4, 1842.

"I hereby authorize M. E. Thomas Taylor to practise as a licentiate apothecary in this colony.

(Signed) "GEO. NAPIER,
Governor of the Colony of the Cape of Good Hope.

(Signed) "J. MOORE CRAIG,
Acting Secretary to Government."

W. M. Jaffray: Is manager of Messrs. W. Anderson, sen., and Co.'s business at Graham's Town; has known the prisoner since 1837, and has formed a very high opinion of his character.

W. R. Thompson, merchant: Has known the prisoner between six and seven years, and has found him strict and honourable in all his dealings; he has never seen anything in his conduct but what gave him the most favourable opinion of him.

E. L. Kift, merchant: Has known prisoner about five years, and the opinion formed by him is that he is a perfectly honourable man in every sense of the word.

Mr. Ebden, as counsel for the prisoner, made a very able defence. He quoted Roscoe and Chitty on evidence—showing that to constitute forgery there must be intent to defraud; taking also an exception, and which he argued very ingeniously, that by the omission of the letter *a* the copy of the licence as set forth in the indictment did not correspond with the document itself, which had not the article *a* before surgeon. He stated he was instructed to state that the alterations in the licence had been made at the request of prisoner by Mr. Craig, since deceased, when acting secretary to Government, and that not only was his death unfortunate for the prisoner, but also that of Mr. R. Watson (late hotelkeeper), who could have shown the terms of intimacy between himself and Mr. Craig.

The Judge gave a very emphatic and luminous charge to the jury, pointing out very distinctly the connection of the evidence, and explaining accurately the nature of the offence constituting forgery. His lordship dwelt upon the high character given to the prisoner, but remarked that an individual's previous good character could not alter the nature of the evidence, and upon which alone the jury could, consistently with their oath, found their verdict.

The jury retired for about half an hour, and then pronounced a verdict of "Guilty," strongly recommending the prisoner to mercy, as well on the ground of the high character given to him in evidence, as from their own observation, during several years, of his fair and honourable deportment.

Sentence—Six months' imprisonment, with hard labour.

Prisoner, on receiving sentence, exclaimed—"I am entirely innocent—God forgive the instigators of this prosecution!"

R. MOORE v. E. T. TAYLOR.—This action was brought against the defendant, apothecary at Graham's Town, for having performed unskilfully a surgical operation. The son of plaintiff having had the misfortune to break his arm, defendant was called in as a medical man, and who treated it as a simple fracture, when from the evidence of Drs. J. Atherstone, G. Atherstone, and W. B. Morgan, the injury was a dislocation of the elbow-joint. This had not been reduced, and the patient had by the neglect sustained permanent injury. The court held that it was of the greatest public importance that incompetent persons should be deterred from thus doing mischief, but considering the situation of the defendant, coupled with the fact that the injured party had partially recovered the use of the broken limb, he should mitigate the amount of damage to £20 with costs.

GOSSIP OF THE WEEK.

NAVAL APPOINTMENTS.—Thomas Tait, surgeon, to the Star; George Pardoe Cooke, acting assistant-surgeon, to the Victory; Mark Hamilton, assistant-surgeon, to the Rhadamanthus; F. Manger, assistant-surgeon, confirmed to the Caledonia; G. B. Ryan, assistant-surgeon, to the Crocodile.

APOTHECARIES' HALL.—Gentlemen admitted members on Thursday, Jan. 20:—James Bailey, Wednesbury; George Robart Hanbury, Hereford; Frederick Greenwood, Huddersfield; John Broadbent, Leeds; and Josiah Clarkson, Birmingham.

ST. THOMAS'S HOSPITAL.—On Wednesday, Mr. Jas. Dixon, one of the surgeons of the London Ophthalmic Hospital, was appointed assistant-surgeon in the place of Mr. B. Travers, jun., resigned.

THE COURT: CHLOROFORM AND THE QUEEN'S CONFINEMENT.—On Monday the Queen, Prince Albert, and their children left Claremont for Windsor, where they have remained during the week. Some interest was excited by an announcement in the *Edinburgh Witness*, that Dr. Simpson had received intimation that his services, with the agency of chloroform, would be required at her Majesty's approaching confinement. This would have been highly important, as establishing an example, a precedent, of which we English think so much. The matter is ended, however, the *Caledonian Mercury* having a peremptory "We have authority to state that there is not the slightest foundation for the report published in the *Witness*."

PROFESSIONAL NATIONALITY. — Curiously enough, all the appointments held by the late Mr. Liston, the surgeon, have been filled up by Scotchmen. Professor Syme, of Edinburgh, succeeds the deceased at the University College Hospital; Mr. Arnott, another Scotchman, occupies the chair at the Court of Examiners, hitherto filled by Mr. Liston; while Professor Fergusson, of King's College, a third Scotchman, is appointed surgeon to the Scottish Hospital in the room of the deceased.—*Globe*.

QUARANTINE AT NAPLES.—We understand that official information has been received from Naples, stating that the Board of Health of that city has thought fit to place the whole United Kingdom of England, Scotland, and Ireland in quarantine, in consequence of a report that two cases of Asiatic cholera had occurred in this metropolis, in the month of November last. It is intimated that all vessels which may have cleared from the port of London since the 3rd of December will be refused admittance altogether into the port of Naples, and that vessels from any other port of the United Kingdom will be subjected to a quarantine of from 14 to 21 days. We trust the Foreign Secretary will lose no time in protesting with suitable alacrity and vigour against this absurd measure, so extremely injurious to the mercantile interests of this country, and so utterly unwarranted by the facts of the case. If the Neapolitan Government or its agents in London had made proper inquiries, they would have found that the only cases of illness which were assimilated at the time to Asiatic cholera were but two in number; that they were isolated cases, accompanied and followed by no circumstances which could in any degree warrant the existence of contagion, infection, or even of epidemic disease. This is not the first time that we have had occasion to remonstrate against the extravagant and precipitate measures taken by the sanitary officers of Naples. Some years ago they thought fit to place we know not how many ports of the United Kingdom under the same ban, because a newspaper had reported the existence of typhus fever in the wynds of Glasgow; and it has been shown that they have a personal and pecuniary interest in inflicting these vexatious restrictions upon commerce on all possible occasions. The present case is really one of such consummate impertinence and folly, that it calls for a prompt correction, and compensation to all such British merchants as may have been interrupted in their lawful undertakings by the capricious fears of the Napolitan Board of Health, and we have no doubt that an immediate withdrawal of this order will at once be required by the British Government in such a tone as to obtain it.

CHOLERA IN RUSSIA.—The *Prussian Universal Gazette* contains the following, under date St. Petersburg, Jan. 11:—"According to the last accounts received from Moscow, 159 cholera cases occurred in that city from the 19th to the 26th of December, 84 of which terminated fatally. During the preceding three weeks the epidemic preserved the same degree of intensity; but, during several days, the number of cases

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had been somewhat more considerable. In the districts of the Government of Moscow the scourge was of a mild character. In the Government of Twer it continued circumscribed within the limits of the district of Torschok; but in the Governments of Kasan and Orenburgh it raged with more violence. In those of Minsk and Podolia it was extending slowly. The town of Bobruisk had severely suffered. On the 14th of December the cholera manifested itself at Witepak."

THE INFLUENZA.—The *grippe* continues at Madrid. Four of the Ministers are confined to their beds by the malady—viz., the Dukes of Valencia (General Narvaez) and Sotomayor; M. Beltram de Lis, and M. Sartorius. Their illness in not of a dangerous character, but, generally speaking, the mortality is great. As many as 122 persons have died in one day.

OBITUARY.—John Campbell, Esq., M.D., late of Cawnpore, aged 49.—On Jan. 15, at Sunnyside, Robert Gregory, Esq., surgeon, aged 60.—On Jan. 16, of purpura, at the Plymouth Royal Eye Infirmary, Mr. John Elliott, the dispenser, aged 67, having filled that office for twenty-six years, since the commencement of the charity in 1821, with the greatest satisfaction to the subscribers, the medical directors, and patients. Mr. Elliott had also been a soldier in the South Devon Militia for forty-six years, and the sergeant-major for twenty-five years, during which period he received the commendation of every commanding officer under whom he served.—On the 11th inst., at 14, Manor-place, Edinburgh, Wm. Burt Wright, Esq., M.D.—On the 18th inst., at Hungerford, Mr. Barker, surgeon, in the 69th year of his age.—On the 3rd inst., at Kirkcudbright, Wm. Howatson, Esq., surgeon, late of Woodpark, Kirkpatrick, Durham.—On the 2nd inst., at Carlow, aged 83, Martin Tuomy, M.D., formerly professor of the Practice of Medicine in Trinity College, Dublin.—On the 4th inst., at Shefford, Bedfordshire, aged 73, Charles Seaman Gaye, Esq., M.R.C.S.—On the 9th instant, at Armagh, of fever, Thomas S. Parker, M.D.—Lately, at Tipperary, of fever, Edward Dalton, M.D., medical attendant of the Bansha Dispensary.—Lately, at York, William Stephenson Clark, Esq., M.R.C.S.

MORTALITY TABLE.

For the Week ending Saturday, Jan. 22, 1848.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1401	1107
SPECIFIED CAUSES...	1398	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	379	184
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	36	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	138	138
Diseases of the Lungs, and of the other Organs of Respiration	343	225
Diseases of the Heart and Blood-vessels.....	34	39
Diseases of the Stomach, Liver, and other organs of Digestion	67	62
Diseases of the Kidneys, &c.	20	9
Childbirth, Diseases of the Uterus, &c	9	13
Rheumatism, Diseases of the Bones, Joints, &c. ...	8	8
Diseases of the Skin, Cellular Tissue, &c.	0	1
Old Age.....		
Violence, Privation, Cold, and Intemperance.....	25	31

NOTICE

SUBSCRIBERS IN ARREAR are respectfully requested, in conformity with the terms of their subscriptions, at once to forward their remittances to the OFFICE.

TO SUBSCRIBERS.

☞ The subscription for the stamped edition of the *Medical Times* is 15*s.* for the half-year, and £1. 5*s.* for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfrae.

TO OUR READERS.

The publication of Mr. Wardrop's work, and of the other series and contributions to which we are pledged, will occupy so large a portion of our available space, that correspondents who would secure publicity for their views are earnestly recommended to give their communications all the advantages (including brevity) which can arise from careful and mature preparation.

To avoid the trouble to ourselves, and expense to others, arising from orders for *slips* of communications, we have to announce that in future the publisher has orders to send, free of expense, twelve copies of the journal to every gentleman whose "original contribution" may be published under that "heading." This order does not apply, of course, to the small letters and contributions published under the heading "Miscellaneous Correspondence."

TO CORRESPONDENTS.

"Chirurgus, H.E.I.C.S.," informs us that he has had an opportunity of studying closely the Asiatic cholera, and that he has found, in its early stages, calomel and opium beneficial. He also states that he has seen many instances great good effected by the abstraction of blood.

"Mr. S. Baker."—Application should be made at the War-office, where the necessary instructions can be obtained, and no expense incurred.

"Juvenis."—The articles required for the professional use of an assistant-surgeon are named in a printed document, which can be easily procured at the Company's house in Leadenhall-street.

"I. F. G., Windsor."—The communication has been received, and will in all probability be published next week.

"Spectator Medicorum."—The communication, though containing many good points, is inadmissible. It would subject us to an action for libel.

"Inquirer, Dockhead."—Gun-cotton has been employed for the purpose of applying cupping-glasses, a vacuum being produced by the sudden ignition of the cotton; nor do we know that it injures the skin.

"A Navy Surgeon."—We have already considerable information on the subject, and intend to consider it in all its bearings. We regret that the Government has exhibited so much supineness in rewarding deserving medical officers.

"Baccalaureus."—The work is published by Mr. Renshaw.

"Rusticus."—Our correspondent's experience in the profession must be very limited, or he would not propose the questions he does. Chloride of lime may be very well for the removal of certain noxious agents in the atmosphere; but we are doubtful of its efficacy in cleansing a foul stomach.

"A Constant Reader, Glasgow."—We can only form an opinion on the hospital reports by inspection. If sent, they shall receive immediate attention, and our opinion communicated afterwards in a private letter.

"Beta."—The case of amaurosis we shall not be able at present to insert.

"Socius."—The remarks are founded in truth, and the castigation is severe. We shall in all probability give the communication a place in our columns.

"Mr. Dalton."—We know of no gentleman suited to the proposed task.

"An Irish Surgeon."—The apothecaries' certificate must be obtained, or medical charges cannot be sustained in the courts of law.

"A Subscriber, Oxford."—As a surgeon, yes; as an apothecary, no.

"A General Practitioner."—Medical titles are of little value when obtained by purchase, and not examination. The German universities do not now grant degrees without first testing the abilities of the candidates.

"A Reformer."—The suggestions are good, and if our correspondent will favour us with his name in confidence they shall be published.

"E. A. G."—Robinson's work will suit our correspondent.

"A Westminster Medical Student" writes us as follows, in reference to chloroform:—"It is a well known fact, proved by daily experience, that the inhalation of chloroform produces relaxation of the muscles. Now, in the circular amputation of the thigh, the making a good stump depends in a very great degree upon the muscles contracting powerfully and quickly immediately they are divided with the knife, and allowing the surgeon to remove a greater portion of the bone, and so preventing the formation of a sugar-loaf stump. If we use the chloroform we prevent the muscles contracting, and after the operation is completed the stump may appear very satisfactory; yet after a time the patient recovers from the effects of the chloroform, relaxation of the muscles ceases, contraction comes on, and what the surgeon so much dreads (a sugar-loaf stump) actually ensues. Again, by the muscles being relaxed, many small vessels have to be secured by ligature which would otherwise be blocked up by the firm contraction of the muscles around them."

"Anti-Quack."—1. A member of the College of Surgeons is entitled to a fee for filling up the schedule, and his opinion would be considered valid. 2. It is necessary to prove attendance upon a patient in order to sustain a prosecution.

"A Pupil."—1. The phrase means inspissated oxgall. 2. Mr. Yearsley's work.

"Amator Scientiæ."—We would advise our correspondent to pursue the plan laid down in the calendar. The four or five first books of Euclid may be sufficient at the commencement.

"Mr. Robinson, Gower-street, Bedford-square."—The "Practical Remarks on the Employment of Chloroform in Surgical Operations" shall appear in an early number.

"T. H." complains that the editor of "The London and Provincial Medical Directory" has formed his black list with little or no reference to the qualifications of medical men; and supposes, from its extent, that he has acted on the compendious principle of placing in it everybody not subscribing to the book. We think the work so important, and so worthy of public support, that we should much regret any imperfections or deficiencies in detail.

"A Galway Reader."—The paper is not of a character to warrant publication; and we are not cognisant of the party in Dublin by whom it would be "eagerly published." There is, or was, a small weekly reprint of the worst parts of the English medical journals published in that city, edited by some unemployed practitioner with a Jewish name. Is this the journal meant? If our correspondent do not take pity on his paper in the meantime, we shall next week pass it on to that asylum of destitute contributions, if it still exist.

GUTHRIE AND LISTON.—We have received from Mr. Mitchell, of Bond-street, copies of two graceful lithographic portraits of Mr. Guthrie and the late Mr. Liston, from the pencil of Comte D'Orsay. We have in them all that artistic genius and gentlemanly taste can accomplish in doing justice to the external lineaments of these two great surgeons.

"Surgery made Easy."—G. S. C. says—"The College of Surgeons are trying the experiment of 'surgery made easy.' In your advertising columns an advertisement appears for a pupil by one of these easily-made members, who first emerged as an apprentice to a veterinary surgeon, and then took up the trade of druggist; afterwards became a candidate for the ministry amongst the Wesleyan Methodists, and, being rejected, commenced adventures upon his fellow-creatures, with the sanction of a diploma conferring no legal qualification. Unable to face the examination at the Hall, he trusts for fame and fortune to a brougham cab, a little display, and the credulity of the public. His example has influenced others, and there are not less than five or six druggists attending the lectures at the Medical School of Manchester who openly boast that they intend to practise without the licence of the Hall, because to secure it more toil and more knowledge are required." Our correspondent insists on the application.

"Mr. Moore, of Bourton-on-the-Water," writes—"It is only on account of its widely-spread diffusion that the extent of preventible deaths in rural districts has not received the attention it requires at the hands of sanitary reformers; for, were the isolated cases collected into one whole, they would be found to present an alarming proportion to the general list of mortality." He therefore "appeals to country practitioners and union medical officers for such early information as shall enable him to make a statistical report of the sanitary condition of our villages and smaller towns, which, if only an approximation to the truth, will show the necessity of extending to such places the benefits derivable from sanitary legislation." He appends a tabular list of queries, which includes for heads—"Names of villages or non-corporate towns," "Population," "Number of cases," "Mortality," "Causes which have appeared to extend the disease or to increase its fatality."

We shall endeavour to find room for a "Medical Officer, Lincolnshire," in our next.

The cases furnished by "Mr. Pritchard, of Barnby Moor," and "Mr. Stainthorpe, of Hexham," have been received.

The communication of "Mr. Alfred Ebsworth" has been received, and shall have early consideration.

"M. D., Worcester," has much obliged us by forwarding the able article in the *Worcester Herald*.

"R. S., Cambridge."—Professor South's lectures will be early resumed.

"J. B. H., Claremont," addresses us in strong language on Dr. Lee's alleged attempt to impose on the Royal Society. As there are, however, some fresh facts to come before the public on the whole case, we deem it just to all parties to postpone this communication.

Letters and communications have also been received from Chirurgus, H.E.I.C.S.; Mr. S. Baker; Juvenis; I. F. G., Windsor; Spectator Medicorum; Inquirer, Dockhead; A Navy Surgeon; Baccalaureus; Rusticus; A Constant Reader, Glasgow; Beta; Socius; Mr. Da ton; An Irish Surgeon; A Subscriber, Oxford; A General Practitioner; A Reformer; E. A. G.; A Westminster Medical Student; Anti-Quack; A Pupil; Amator Scientiæ; Mr. Pearson, Woolton; Dr. Charles, Cookstown; Mr. Allen, Lynn; Dr. Oxley, Pontefract; Dr. Smyth, Manor Cunningham; Mr. Cassan, Bradford; Mr. Wakeman, Crickhowell, &c.

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No. 436. SUMMARY, Feb. 5.

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ORIGINAL LECTURES.

LECTURES ON SOME OF THE MORE IMPORTANT POINTS IN SURGERY.

By G. J. GUTHRIE, Esq.,
Surgeon to the Royal Westminster Ophthalmic Hospital.

Lecture I.

ON WOUNDS AND INJURIES OF THE CHEST.

Impolicy of the separation of surgery and physic; danger of wounds of the chest; advantages of auscultation; bayonet wounds rare; complication of non-penetrating wounds by pleuritis or pneumonia; nine cases; Dr. Stokes' case of pneumonia and gangrene of the lung from external injury; healthy sounds heard, during respiration, through the stethoscope; experiments of Van Swieten, Dr. D. Williams, and Mr. Quekett on wounds of the chest; percussion.

A knowledge of the practice of physic is inseparable from the practice of surgery, generally; it is especially so in the treatment of injuries of the chest, if the patient is to receive that assistance which the art and science of medicine, in its most comprehensive sense, can grant. In my introductory lecture for October, 1824, which was honestly taken, and published in the fifth volume of the *Lancet*, I said, nearly in the following words:—"Surgery is considered by some persons to be the management of that art and science by which we take upon ourselves the treatment of external diseases, in opposition to physic, which takes cognizance of internal complaints. This, however, is an artificial distinction: one unknown in Nature, foreign to her principles, and incapable of being preserved, by those who have extensive opportunities of practising the profession. In a large town, the surgeon, the physician, the apothecary, and the professor of midwifery, practising separately, may be brought together; and it may be said that a union of scientific men, each devoted to different parts of the same pursuit, is desirable in cases of doubt and obscurity. If the argument could be supported for a moment for the perfect separation of these branches of one and the same science, there is nothing to prevent a still further separation of the treatment of disease, even to infinity. The practice of surgery ought never to be separated from the practice of physic, if the surgeon is to take the (sole) charge of accidents. In the cure of a simple fracture of the leg, is nothing further necessary than the mere mechanical coaptation of the parts? Is the bone, like a piece of timber, unconnected with a living structure? If it be so, a carpenter could replace it as well as a surgeon. It is, however, a part of the living body; it reacts on the system, and requires constitutional as well as local treatment; the physician will be necessary, therefore, at every visit, to afford the requisite relief. If the surgeon is to be any other than the mere drudge, or artist, he must first learn the principles, and he must then continually engage in the practice, of physic."

These opinions were expressed nearly twenty-four years ago; they preceded all those of the different gentlemen who have thought in a similar manner in later times. I have, however, done more than declare my sentiments on this point. I have been enabled, in consequence of my office, as one of the Council of the Royal College of Surgeons, to aid in carrying them into execution, with respect to those gentlemen who have of late years entered the profession, and intend to become members of that body. Since the year 1835 they have been obliged to follow the practice of the physician for a year in a hospital, after a reasonable preliminary study in the shop of the apothecary; and if any portion of blame, or of credit, is due to the proposers of a measure, however small it may be, that small portion—be it of censure or approval—is due to those who acted with me.

Wounds penetrating the walls of the chest, and implicating any part or portion of its cavity or contents, are among the most dangerous of injuries; and require in their treatment a more careful attention, and a greater extent of knowledge, than most others which befal mankind. The means which the improved methods of auscultation have afforded cause the progress of the symptoms which follow to be less obscure than formerly, and lead to a less doubtful practice; whilst they render a knowledge of this branch of medical science an essential part of the education of a surgeon who is desirous of attaining a complete acquaintance with the treatment of diseases and injuries of the chest—information withheld from me in former days, in those cases to which I shall principally allude, and the state of which I had to conjecture from those pathological facts which dissection had in other instances demonstrated, but the progress of which I could not always distinguish with anything like that degree of certainty which auscultation affords at the present moment. Careful and lengthened observations, which became in time experience, had pointed out the great and leading practical facts which accompanied and followed these injuries; and the treatment was perhaps as good, although more empirical, in the last days of the war in the Peninsula, as it is at the present moment. I cannot now add practical recommendations other than those which I have been in the habit of recording in my lectures during the last thirty years; but it is possible to render the causes and the symptoms which made these recommendations necessary, more apparent.

During the war in the Peninsula, and in France, the French cavalry, although always superior in number to the British, did not often avail themselves of that superiority, to attack in the manner they are reported to have done on other great continental occasions; and wounds from swords or lances were, therefore, comparatively rare during that eventful war. Wounds from bayonets were not more common: for although much has been written, and more stories have been told (indeed, so often told that the people who relate actually at last believe them), about charging with the bayonet, their crossing and locking, the heroic efforts made by the conflicting parties, and so forth, that it might be supposed these wounds were of frequent occurrence; the fact is, however, otherwise. That regiments do advance, some in line, some in column, with the intent to charge with the bayonet, is indisputable; that other regiments do intend to meet them, or to receive the offered charge, is no less true. Nevertheless, they generally do neither one thing nor the other, but by some means, or accidental causes, of which I do not presume to give any account, one party usually thinks discretion the better part of valour, and walks silently and angrily away. The unfortunate fellows who cannot get off fast enough, do occasionally suffer a little in the scuffle which takes place, and here and there small parties may engage in personal conflict; but, be the matter as it may, it rarely happens that many are hurt by the bayonet, or, if they are, they are killed outright, and do not come under the observation of the surgeon. As duels with swords are rarely fought in England, and stabbing does not prevail to any extent, wounds from what the French term *armes blanches* have always been less common than those from pistol or musket balls.

Incised or punctured wounds, from swords, bayonets, or knives, require a mode of treatment essentially distinct, on many points, from gunshot wounds, especially in the commencement. On this early treatment so much depends, that details of the more serious or more important cases are rarely found among the records of injuries sustained on the field of battle, where so much is often to be done, and so few are to be found to do it. They are met with among the records of isolated cases which have occurred, from time to time, to medical men, who have had leisure to bestow upon them, and ability to direct its proper application; a remark especially exemplified in the "Clinique Chirurgicale" of the Baron Larrey.

The simplest of the more serious results from injuries not penetrating the chest is the occurrence of inflammation either of its lining membrane, giving rise to what is called pleuritis, or of the substance of the lung, termed pneumonia. These affections are rarely met with separately after wounds, and more particularly the latter, without implicating the former, constituting what has been named pleuro-pneumonia.

Case 1.—I stood immediately between some soldiers on the 17th of August, 1808, in the act of leaving the village of Colombeira to ascend the heights of Roliça. One, who was shot in the leg, jumped up three or four feet, and made a considerable outcry. A second was struck at the same time by a ball on the shoulder, which did not penetrate, but gave him great pain. A third received a ball on his buff leather belt, on the right breast. The noise made by these two blows was very distinct. This man fell, and was supposed to be killed; the ball had, however, only gone through his belt, and made a mark on his chest, over the cartilage of the fourth rib, the hardness and elasticity of which had prevented further mischief. He recovered in a short time,

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spit a little blood in the night, and after a large bleeding was enabled to accompany me on the 20th to Vimiera, ready for the fight next morning, from which he escaped unhurt.

Case 2.—A soldier of the battalion of detachments crept up to me on the hill of Talavera on the evening of the first attack of the French advance, who had driven them over it. He had been struck on the breastplate by a ball, which, as he believed, had gone into, if not through, his body. He was as white as a sheet, and desperately frightened. On opening his coat, I found it had struck against the breastplate, and had made a round, red indentation on the skin, without going deeper: the breastplate had saved him. I did not see him again for several days, until after crossing the bridge of Arsobispo, on the retreat to Truxillo. He was then engaged in disembowelling a fine fat hog, amongst a herd of which we had unluckily for them just fallen. He recognised me at once, said he had been, as I told him, more frightened than hurt; that he had been bled largely and well physicked, and after a couple or three days had thought no more of it. I am bound to add, that in gratitude he offered me a part of a leg, which, having nothing to eat, I could not but accept. It supplied a dinner for three (besides myself), who are now no more.

Case 3.—A soldier of the 40th Regiment slipped from the ladder on which he was attempting to scale the wall near the great breach of Badajoz, the night the place was taken, and fell on his cartridge-box, which hurt his left hypochondrium so much as to render him unable to move for some time. The next day, the 7th of April, he suffered great pain at this spot, and on the 8th was so much worse as to seek advice at the hospital tent. The ribs were not broken, but the part injured was painful to the touch, the difficulty of breathing considerable, with a hard cough, and little expectoration. Pulse 96; skin hot, appetite gone, tongue white.—V.S. ad ℥xvj. and aperients. 9. Better, pain less, expectoration more in quantity and viscid.—V.S. ad ℥xij., and antimonials. 10. Pain still felt on coughing, expectoration reddish, difficulty of breathing greater.—Pil. cal. et antim. c. opio; V.S. ad ℥xvj. 12. Better in every respect. He gradually recovered, his mouth becoming slightly sore, from what was manifestly an attack of pneumonia.

Case 4.—A gentleman, in 1836, fell from his shooting-pony on his powder-horn, which bruised his right side from the seventh to the last rib, and, as he said, knocked the breath out of his body, and hurt him so much as to render him incapable of walking from one room to another, from pain in the side, back, and thigh. No bones were broken. The pain, on the second day, was augmented on breathing and on attempting to cough, and which spirituous frictions did not relieve. The third day he was purged and blooded to sixteen ounces, which gave some relief, but, as the symptoms increased on the fourth day, he was more carefully examined. His right side could not bear pressure; the respiratory murmur was distinct, but accompanied by a crepitating rhonchus under the part injured; cough troublesome, expectoration mucous, viscid, and of a reddish tinge. Antim. tart. and sulphas magnesiæ every four hours; V.S. ad ℥xiv. On the fifth day, the symptoms being little altered, he was cupped on the part affected to fourteen ounces. On the sixth day, the pain was only felt on coughing, or on drawing a very full breath; expectoration redder and thicker, pulse quicker. The rhonchus was quite as distinct.—V.S. ad ℥xij., and the medicines to be continued. After this he quickly recovered, and the natural respiration became distinct.

Case 5.(a)—A mason, thirty-two years of age, fell from the height of seven feet on his back, on the 12th of July, the posterior part of the skin of the right hypochondrium being grazed; the fall did not prevent his continuing to work. On the morning of the 13th, on awakening, he felt a pain on this part, which was increased by every movement of the body, and was accompanied by general disquietude, cough, dyspnœa, and loss of appetite. The 14th and 15th he remained in bed, the symptoms continuing. On the 16th he was admitted into the Hôpital la Charité, and was bled. On the 17th the pain was great, the cough very troublesome, the breathing short and quick. Percussion gave in front its full sound; it could not be effected behind from the pain it occasioned. The respiratory murmur under auscultation was clear and strong before and on the sides, but to the right and behind, in nearly all the extent of the inferior lobe of the lung, a crepitating râle was distinguishable. The expectoration was viscid, transparent, and of a greenish colour; the pulse was scarcely frequent; the skin cool. The nature of the expectoration, and the auscultation, declared the existence of pneumonia.—V.S.; a poultice to the side. A slight sweat took place in the evening.

18. Pain less, respiration freer; otherwise the same. Twelve leeches to the pained spot on the side.

19. Pain only felt on coughing, on percussion, and on drawing a deep respiration; rather more fever. The expectoration more viscid, and rust-coloured (*rouille*), the dyspnœa greater, the crepitating râle continued. It appeared from these symptoms that, whilst the pleurisy diminished, the inflammation of the parenchyma of the lung increased.—V.S. ad ℥x., which gave a sensible relief.

20. Breathes freer; expectoration less viscid; crepitating râle stronger, with a mixture of a slight natural pulmonary expansion sound; fever less. In the course of the day the nose bled freely.

21. An evident amendment of all the symptoms, and from the 22nd to the 25rd complete convalescence.

The viscid, rust-coloured expectoration, and the crepitating râle, disclosed the existence of pneumonia in the first instance, which the absence of fever might have rendered doubtful; and as the stitch or pain indicative of pleurisy diminished, the signs of pneumonia became more marked.

Case 6.—Lieut. Cooke Tylden Patterson, of the 43rd Light Infantry, was struck on the left breast by a musket-ball, on the morning of the 19th of July, 1813, in front of the village of Vera, in the Pyrenees. He sprung two or three feet in the air, and fell on his back breathless, and as if killed. When he had in some degree recovered from the blow, he found that his life had been preserved by an accident. Whilst waiting the order to advance, he had been reading "Gil Blas" in Spanish, and, on receiving it, he had hastily put the book in the breast-pocket of his coat. The ball had struck this, but, unable to penetrate it, had fallen on the ground at his feet, completely flattened on one side, and marked with the impression of the braid of his coat. A piece of the cover of the book, about the size of half-a-crown, was driven in, and the leaves throughout were indented by the ball. It was some days before the effects of the blow entirely subsided.

Case 7.—A stout man, fifty-three years of age, fell on the stairs with an iron box in his hand, on Tuesday, the 7th of September, 1847, and bruised the left side immediately over the ends of the short ribs, which gave him great pain at the part, and over the cartilage proceeding to be attached about the eighth rib. On the 8th he was bled freely; aperients and saline medicines were given, and a bandage was applied tightly around the body. On the 9th the pain became greater, the breathing more difficult, and a crepitating rhonchus was heard underneath both the spots complained of. On the 10th I saw him for the first time, in consequence of the crepitation or crackling of the lung, resembling in some degree the crepitus of a fracture; and, as the breathing was very difficult, removed the bandage, which gave him relief. Pulse 108; cough troublesome, with some thick mucous expectoration. The crepitating sound could no longer be heard, nor the vesicular murmur under the two spots, which still gave him great pain on being touched. Blood was drawn until relief was obtained; about twenty-four ounces were taken away, and three grains of calomel, with two of James's powder, and one-third of a grain of opium, were given every four hours. On the 11th he was in all his feelings better; the pain had subsided; the breathing was easier, more natural, and clearer in every part except the two spots before mentioned; bowels open; cough troublesome. Continue the calomel and increase the opium at night. On the 13th the gums were slightly sore, and his symptoms had all diminished in intensity. 14. Cough alone was troublesome; respiration distinct, except under the parts injured, and there even some indistinct murmur could be perceived. From the 16th to the 24th the mouth was kept moderately sore; blisters were afterwards applied on the parts injured, and he gradually recovered.

Case 8.—A soldier of the 97th Regiment was struck, at the unsuccessful assault of Fort Christoval, opposite Badajos, by a musket-ball, which went through his brass breastplate and coat, drove his shirt into his skin, and against the sternum, which it was not able to penetrate. He fell, and was supposed to be killed; but he soon recovered his wind, got up, and ran to the rear as fast as he could. The ball was found flattened between his shirt and coat. The part of the chest was very black next day when I saw him, the spot struck by the ball being much bruised. It was necessary to bleed him largely. All difficulty of breathing was then removed.

I have seen very many instances of persons struck in different parts of the chest, nearly similar to those above stated. In some they have been fortunate enough to escape with the blow and the alarm; in others a little spitting of blood ensued, and, as in the preceding cases, more or less inflammation followed. When a ball actually makes a wound, rather than bruises the part, internal inflammation is a consequence perhaps more rare.

Case 9.—Major Eglitfoot was struck by a musket-ball on the left breast, which went through his clothes, the integuments and the outer part of the great pectoral muscle, and slanted inwards for three inches towards the sternum, to which distance its track could be followed. It was evident that the ball had neither lodged nor penetrated, for no serious symptoms ensued, and I had with him as little doubt that it had been ejected the way it went in by the elasticity of the cartilages of the ribs near the sternum.

This sort of injury, which I have seen in many other instances, is, at the moment, as curious as it is interesting to the patient.

The nine preceding cases show that inflammation of the pleura, and sometimes of the lung itself, is a common consequence of a severe blow. The following case of its extending even to gangrene is recorded by Dr. Stokes:—

Case 10.—A middle-aged man was attacked with symptoms of pneumonia, in consequence of a contused injury of the right side. From these he partially recovered, when he was thrown from a car, and received a second injury on the same side. Cough, with a dark-coloured, offensive, and occasional hemoptysis, set in. He was admitted into hospital, in the seventh week of his illness, with extreme prostration. The countenance was of a leaden hue; the respiration seventy-two in a minute; breath fetid; cough constant, with expectoration of a yellowish-white purulent matter. By the stethoscope, a large cavity was detected in the right lung. He died four days after admission.

Inspection.—A vast gangrenous abscess occupied the whole posterior part of the right lung, and contained a large, moist, and soft slough, of an extreme fetor; the upper part of the cavity was lined with a distinct layer of coagulated lymph. Dr. Stokes gave in this case, and thinks the best remedy in gangrene of the

(a) Andral, Clinique Médicale. Maladies de Poitrine. Obs. 7, tome 1.

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lung is, chlorine, in the shape of chloride of lime and soda, combined with opium.

In order to understand, or to become in any way acquainted with, the changes from the natural structure which are going on under derangement in the chest, from even simple injuries, it is necessary to have recourse to auscultation, and sometimes to percussion, if the external parts are not too tender. Under all circumstances, both sides of the chest should be examined, whilst perfect silence and quiescence are observed; the stethoscope being preferable, when the ear has been properly trained to its use.(a) As the ordinary breathing of an individual is rarely sufficiently strong to enable the auscultator to hear with sufficient distinctness, the patient should be desired to inspire fully and morequickly than usual, without, however, much effort, and without noise from the mouth or nose, or retaining his breath. The inspiration and the expiration are both to be carefully observed. When the patient is really awkward, and cannot respire in the manner necessary to convey sounds to the ear with the required precision, he may be desired to cough, each shock of which will be preceded and followed by a long inspiration, when the desired object may be attained, which in some persons it is difficult otherwise to accomplish.

Respiration being effected through the medium of the larynx, the trachea, and the lungs, the sound derived from the passage of the air is different in each. When the ear is firmly and equably applied to the chest of a healthy young person, a very distinct and long-continued sound is heard at the moment of inspiration, and another at that of expiration. This is called the vesicular or respiratory murmur, and is dependent on the air fully permeating and distending the air-vesicles of the lung. It has been almost poetically compared to the sound of a gentle gale rustling in a thick summer foliage, to the whisper of a spring wave on a sandy beach in a calm day. It is soft, scarcely sonorous, gentle, and, during inspiration, continuous.

When the ear or the stethoscope is applied in the situation of the great bronchial passages, as over the first bone of the sternum, under the clavicle, in the centre of, or between, the shoulder blades, a different sound is usually, but not always, distinguishable, when the patient breathes fully, arising from the passage of the air through these bronchial tubes. It is compared to the noise made on blowing through a reed or quill, and is called bronchial or tubular respiration. When heard in other parts of the chest, it is generally regarded as a morbid sound. If the stethoscope is applied over the trachea, the sound is louder, rougher, and more intense, and is called tracheal respiration. On the larynx, it is louder, hoarser, and rougher still. It has been compared to the hissing sound caused by blowing into a cavity through a tube of large calibre, and is called laryngeal respiration. In childhood the respiratory murmur is louder than in adult persons, arising probably from the greater activity of the lungs in young than in elderly people. This is called, and especially when perceptible in adults, puerile respiration, as opposed to their ordinary, or what in old persons may be called senile; and is more marked during inspiration.

The length of the sound in inspiration, as compared with that of expiration, has been said by Fournet to be as five to one. Barth, Roger, Andral, Hughes, &c., consider it to be as three to one, or five to two. One is louder and longer than the other, a difference requiring attention, from the circumstance that morbid sounds of great import are heard in inspiration, which do not prevail during expiration. When any other difference is perceptible between them, so that they more nearly resemble each other in duration, or in intensity, or when expiration is prolonged, some structural alteration may be suspected in old persons, some disease in young ones. When little or no respiratory murmur can be heard after symptoms of inflammation have existed for some time, the case is very serious, implying that effusion into the cavity, or that condensation of the lung, has taken place to a considerable extent.

The number of inspirations in the adult and elderly person varies from eighteen to twenty-two, in a state of health. From twenty-two to twenty-six in children. The stroke of the pulse is generally as four to one. If the inspirations are eighteen the pulse will in general be seventy-two. Both may be slower, although they are often more frequent, under disease. When the breathing is slower, it commonly indicates some affection of the nervous system; when very rapid, some important lesion within the chest.

Ordinary inspiration is effected in health by a general enlargement of the chest, which takes place by an elevation little remarkable upwards, and by its enlargement from before backwards. The diaphragm at the same time descends, drawing the lung downwards with it. When the breathing is hastened, the elevation of the chest is more evident. When the breathing is forced to its utmost, the thorax is manifestly enlarged in every direction.

Van Swieten, in the second volume of his "Commentaries on Boerhaave," page 95, Edinburgh, 1776, says Dr. Houstoun showed him a little dog, both sides of whose chest he had opened three days before, and which ran about briskly. Having examined these wounds, he saw that the lungs did not adhere, and that a wax candle was extinguished by the air blown out from the wounds. After making some horrible experiments on other living dogs, he came to the conclusion, "that wounds penetrating both sides of the thorax, and admitting the air, are not speedily and certainly mortal, unless the openings exceed in size those of the glottis."

Dr. D. Williams, of Liverpool, in 1823, apparently unaware of the atrocious cruelties committed by Van Swieten on this point, instituted other experiments on dogs for a similar purpose, which he published in "The London Medical and Physical Journal," and came to the same conclusion; "That the lung of one side will not collapse to any extent after an opening has been made into that cavity, provided respiration is duly carried on by the opposite lung, and that the lungs possess a peculiar motive power dependent probably on their vital as well as organic, elasticity." He further showed that a dog would recover after an opening of an inch and a half long had been made in each side of the chest, provided the animal be allowed to run about, with as free use of his respiratory organs as can then be effected.

Dr. Williams was also induced to apprehend from his experiments that a sound lung never fills the bag of the pleura, particularly towards the diaphragm, at least during ordinary respiration; and he was led to this from not being able to wound the lung in a living dog, by pushing a knife into the chest immediately above the eleventh rib. I requested Mr. Quekett, the assistant-conservator of the College, to repeat this experiment on some sheep at the moment of their being killed. He stabbed five sheep immediately on their throats being cut; in three of these, in which the knife was passed between the tenth and eleventh ribs, both the lung and diaphragm were wounded. In the fourth, in which the puncture was made between the seventh and eighth rib, the lung only was wounded; and in the fifth, in which the knife was passed between the last two ribs, the diaphragm only was penetrated, the knife passing through it into the abdomen. He therefore concludes, from these and other observations, that the base of the lung is always in contact with the surface of the diaphragm.

In ordinary expiration the chest diminishes in size. The ribs which had been raised recede, by the elasticity of their cartilages and by the return of the ligaments to their state of rest; the elevating muscles become relaxed, whilst others belonging to the lower part of the trunk and abdomen contract. The diaphragm is relaxed and pushed upwards by the viscera of the abdomen, pressed upon by the muscles of its wall, if it should not be drawn upwards by the attraction of the lung, which, when distended, endeavours by its elasticity to return upon itself, and to occupy less space than the capacity of the chest will afford. The lung, covered by the pleura pulmonalis, and invested by an elastic, special, and transparent membrane, is composed of an innumerable number of air-vesicles, the largest being equal in size to the fourth part of a millet-seed. These air-vesicles, crowded together, each communicating with a fine bronchial tubule, are separated from each other and into groups by a condensed cellular tissue, thicker where it surrounds these lobules, which alternately form, when aggregated together, a lobe, whence it is called interlobular tissue. An artery and vein form a very minute network around each vesicle.(a) These vesicles may become filled by water; and, when dilated by air, constitute what is called emphysema of the lung. The lung is in man constantly applied to the internal surface of the chest. The pleura, or serous membrane covering the lung, is closely applied to the pleura lining the wall, and one surface glides upon the other, moistened by a secretion in just sufficient quantity to effect this object. If the intercostal muscles of a young animal are removed to a sufficient distance, the lung and the diaphragm may be seen applied to the inside of the pleura lining the rib, and ascending and descending in concert, the lungs moving vertically, not horizontally.(b) The diaphragm ascending, and covered by its pleura, is in a similar manner applied to the lower part of the wall of the chest, which had been filled by the lung during inspiration. After death the lung remains applied closely to the pleura, and recedes on an opening being made into that membrane, provided no adhesions exist to prevent it.

Dr. Stokes believes himself to be the first who pointed out an elastic tissue covering the lung, and lying between its substance and the pleura covering it. Mr. Gulliver demonstrated the existence of a yellow elastic tissue, like that found in the coats of arteries, not only in the interior of the lung around the air-cells, but that it was identical with the external elastic capsule, which is particularly strong in the horse and the elephant. Camper, Stukely, and others, had already shown that, in the elephant, the lungs were kept in close apposition with the sides of the chest and diaphragm, by means of a connecting membrane extending from the pleura pulmonalis to the pleura costalis. Mr. Quekett informs me, that microscopic observation has demonstrated that this membranous structure is, in reality, a normal elastic tissue, and not an adventitious membrane, the result of inflammation.

Mr. Quekett is, then, disposed to conclude that, whilst no pleural cavity really exists during life, which cannot be the case in the elephant; that, in this animal, the connecting elastic tissue, aided by a delicate areolar tissue, assists materially in inspiration, as well as in expiration.

When inflammation of the pleura takes place, the gliding motion is not effected silently, but with a peculiar noise, called by the French *frottement*. When the lung is inflamed, the respiratory murmur is changed in that part, or is overcome by a peculiar sound, which can be distinctly investigated by the ear—*rhonchus crepitans*. Hence the great value of auscultation, the discovery of which has immortalized the name of Laennec, and enabled the physician to inquire more accurately into the nature of the symptoms which take place, from their com-

(a) For extended views and explanations of the practice of auscultation, reference may be had to the able works of Messrs. Barth and Roger, Paris, 1841, and to "The Clinical Instruction in Auscultation," by Dr. Hughes, London, 1845.

(a) Reissisen de Structura Pulmonarum.

(b) See "Regnaud, Journal Hebdomadaire," tome 5, 1829.

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mencement to their termination in resolution, or during their progress to destruction of the organ.

Auscultation of the voice can also be effected, and discloses peculiar sounds in the natural state, which are also observed during certain stages of disease, when they sometimes mark considerable, and sometimes permanent, derangement of structure. They are called, in general terms, pectoriloquy, bronchophony, and ægophony, which latter is always a sign of disease.

Perfect pectoriloquy, or chest-talking, occurs from the sound of the voice, in a healthy person, being heard when he speaks, if a stethoscope be applied to the larynx, the ear of the auscultator not applied to the instrument, being closed by the finger. It will, under these circumstances, be as distinct as if the lips of the speaker were applied closely to the ear. If the stethoscope be placed in succession over the trachea, near the sternum, the voice will not be conveyed in so clear and distinct a manner. This is called imperfect pectoriloquy. If the stethoscope be now removed to the first bone of the sternum, or to the part over the cartilages of the second and third ribs, or to the inter-scapular region, a different sound will be heard when the patient speaks, which does not appear to pass through the instrument; it is loud, but distant, and not distinct. This is called bronchophony, or bronchial sound. These sounds all, however, merge into each other, and may be considered as varieties of the same sound, more or less distinct or recognisable by one auscultator than another.

Percussion is an aid from which, in particular cases—such especially as pneumo-thorax and empyema—much information may be derived. It is, however, inferior to auscultation, as a whole, and not so readily applicable in cases of wounds and injuries, in which it would sometimes cause great pain, and more inconvenience than would be compensated by the information to be derived from it, unless the first symptoms had been subdued. It was first introduced to general notice by Avenbrugger, physician to the Spanish Hospital at Vienna, in 1763, in a work entitled "Inventum novum ex Percussione Thoracis," &c. &c. A translation into French was published in 1770, by Roziere de la Chassagne en Montpellier; and another by Corvisart, in 1808. In England, physicians were not unmindful of Avenbrugger's labours before the time of Corvisart; and in 1799 and 1800 I frequently assisted the late Dr. Rowley in his examinations of the chest after this method, particularly in cases of hydrothorax, few of which escaped the investigation which percussion afforded.

CLINICAL LECTURE ON SOME DISLOCATIONS ATTENDED WITH REMARKABLE CIRCUMSTANCES.

By JOHN F. SOUTH, Esq.,
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DISLOCATION OF THE RIGHT THIGHBONE BACKWARDS AND DOWNWARDS INTO THE ISCHIATIC NOTCH, FIVE TIMES.

Elizabeth Judge, aged twenty, married, admitted into Dorcas's Ward Jan. 5, 1847, one P.M. Delicate and of flabby texture; eight months gone with child; her second pregnancy. She stated that her mother says the right leg was always shorter than the other, but she herself is unconscious of it, as she has never suffered any lameness.

About six years ago she considers that she first put her right hip out; when, being accustomed to lace herself very tight, so that she could not bend her spine, except altogether on the hip-joints, in pulling on her boot she was obliged to screw herself down very much on the right side, and whilst thus engaged she heard a sudden snap, and felt violent pain in the back of the hip. She immediately raised herself up, and the bone seemed to return to its place, with a snap less distinct, however, than the former. Two years after, the same accident occurred, whilst carrying a tray down stairs, by slipping upon, but not actually off, the edge of the stair. On this occasion she did not hear the bone go out nor return, but believes it was dislocated on account of the severity of the pain, the shortening of the leg, and for a short time the incapability of motion. The pain continued during several weeks.

Two years ago, according to her account, the dislocation occurred for the third time, whilst she was on her knees, unlacing her boot and preparing to go to bed. She heard the bone go out, but it did not return for a few minutes, and on account of the violence of the pain she could not use the limb; but the pain soon subsided on her getting into bed.

She has of late been much in bed on account of her size and weight, and this morning in moving from one side to the other of it, the displacement was produced for the fourth time; but the bone did not return as previously, and a practitioner was therefore called in, who sent her here.

The appearance of the limb was clearly that of dislocation into the ischiatic notch. The right leg was rather shorter than the other; the knee and toes turned a little inwards; the buttock less rounded; the great trochanter behind its natural place and less prominent, and the head of the thigh-bone not to be felt. The movements at the hip were not much restricted, as the thigh could be bent to a very acute angle upon the belly. This, together with the mother's assertion, gave rise to some doubts as to the actual existence of any recent dislocation; but a careful examination of the hip proved satisfactorily the existence of a dislocation, and the woman's own account rendered it more probable that it was recent.

This decided, it became matter for consideration whether, in the advanced stage of her pregnancy, it would be prudent to risk the probability of premature labour, which might be expected to result from the suffering she would undergo in effecting the reduction of the dislocation. Considering, however, that it would be a serious matter to leave her a cripple at so early a period of life, it was determined that, if after stating the circumstances of the risk and the lameness, she and her friends consented, an attempt should be made. Upon the matter having been explained to them, they agreed that reduction should be tried, and, therefore, as the least violent method, Morgan's plan was adopted.

The patient was laid upon the floor on her back, and her pelvis fixed in part by a jack-towel passed around the lower part of the belly horizontally, so as to grasp the dorsum of the right ilium, and its end held on the left so as to prevent the pelvis being thrust to the right, and in part by the hands of assistants, so as to keep it down to the floor. I then put myself on the ground on the same line as the patient, and, having taken hold of her right ankle with both my hands, I placed my right foot on the front of the right oval hole, as near as possible to the inside of the top of the shaft of the right thighbone, a folded towel having been interposed between the pelvis and my foot to protect the soft parts on the former. A jack-towel was also fastened round the thigh above the knee, to assist in making the extension.

Being thus prepared, I steadily and strongly drew the leg downwards and obliquely across the sound limb, at the same time thrusting the upper part of the shaft of the displaced bone outwards, so as to lift its head out of the notch. In a very few minutes the head of the thighbone rose and slipped into the hip-pan with a distinct and audible report; immediately after which the hip resumed its natural form, and the limb acquired length corresponding to that of the sound one.

The woman suffered little pain or inconvenience during the reduction, and she was put to bed without any bandage, except one around the legs, to keep them together.

6. Has had an uneasy night from having been teased with flying pains about the belly. There is a slight discharge from the genitals.

9. Has less pain in the belly. The discharge has ceased. Her clothes were put on to-day.

11. By her own wish she returned home to-day, but went to bed on account of her weight and unwieldiness.

A fortnight after her return, whilst moving herself, "springing," as she called it, from one side of the bed to the other, the bone again slipped out, but she replaced it by straightening herself. In a fortnight from this time she was delivered, and had a comfortable labour.

When she got about she found herself a little lame, which she had not been before. She now (November) limps in walking, and sinks a little as she bears on the right leg. The right trochanter is more full and prominent than the left; its neighbourhood is tender; and when struck slightly, so as to press the head of the bone into the hip-pan, she flinches as if there were some inflammation of the joint.

Remarks.—This is a very remarkable and interesting case, and the discrepancy between the mother's statement, that her daughter's right leg was always shorter than the other, whilst the patient herself says that she was never conscious of such shortness, nor was ever lame up to the time of her admission, is very striking. It is probable, however, that the daughter's account of herself is the more correct of the two, and, therefore, rather to be relied on; otherwise, we are compelled to believe there must have been some disease of the hip-joint, by which the cup of the acetabulum had been shallowed, and its circumference enlarged, so that the head of the thigh-bone could be easily thrown out of it. Of this, however, there was not the least evidence from the statement of either mother or daughter.

It is very probable, as the patient is now of a loose, flabby texture, that she was in much the same condition at fourteen years of age, when the dislocation seems first to have happened; and it is, therefore, likely that the ligaments were either weak or lengthened, or both, which, by allowing unnatural freedom of motion of the bone in its socket, would predispose to its escape from it.

Under such circumstances, it does not seem improbable that the account she gives of the mode in which the displacement first happened is correct. She had laced herself so tightly that the spine, instead of bending upon itself as she dropped her hands to reach her boot, moved only as a whole upon the head of the thigh-bone, and she was "obliged to screw herself very much on her right side." She would necessarily, in this position, bend her knee and incline it inwards to get her toe into the boot, and thus the head of the thighbone would be inclined more to the outer and back part of the capsular ligament of the hip-joint; and then, in the effort to straighten the leg, and thrust the foot into the boot, the resistance it afforded acting upwards, would, with a relaxed and weak capsular ligament of the hip, thrust the head of the bone through its hind part, either upon the dorsum ilii or into the ischiatic notch. The sudden snap she heard can only have been caused by the escape of the head of the thigh-bone into the notch, and the pain she suffered arose from the pressure it made upon the sciatic nerve as it left the pelvis.

The almost immediate return of the bone to its socket as she raised herself up, though doubtless a very rare occurrence, is neither impossible nor improbable. That it did so more than once in some of the subsequent displacements of the bone, and almost without her cognizance, seems to be certain. And it is not improbable that, on her suddenly raising herself, the iliacus and psoas muscles might act violently and restore the head of the bone to its socket: for, if the reduction of a dislocation be set about immediately after its production, it is no difficult matter to effect it even when at the hip-joint, of which a good instance is afforded by the case I have mentioned in my translation of "Chelius's Surgery," in which the late Mr. Liston reduced a

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dislocation on the dorsum ilii, which had happened only three minutes before, by fixing the patient's pelvis with one hand, whilst with the other he extended and rotated the thigh.

The recurrence of the dislocation thrice afterwards was only consequent on the displacement having once happened, the rent in the capsule of the joint having been either not at all or not fully repaired. The appearance and posture of the limb on the patient's admission into the hospital, when the accident had occurred the fourth time, distinctly showed a dislocation into the ischiatic notch; but the great freedom of movement of the thigh-bone at the hip, which did not agree with one of the marks generally laid down as indicative of this dislocation, namely, immobility, might have thrown some doubt on the case had I not seen a like dislocation in a strong, healthy man, in whom, for the first few hours, the motion at this joint was so little interfered with that I almost doubted of the accident, and delayed attempting reduction; however, on the following day the hip was almost completely fixed, and this, the only wanting characteristic of the injury, being then present, I made use of the ordinary means, and reduced the dislocation. The remembrance of this case, therefore, put aside hesitation in deciding upon the nature of the accident.

It now became a question whether, considering the advanced stage (eighth month) of her pregnancy, the violence necessary for the reduction of the dislocation could be borne by this delicate young woman without risk of bringing on premature labour, and whether it were preferable that she should undergo this risk rather than be subjected to the inconvenience of an unreduced dislocation. This, to be sure, was only a choice of evils; but as the difficulty in reducing the dislocation would be considerably increased, and perhaps its replacement might not be effected if the attempt were put off till her recovery from her confinement, and would, therefore, involve a delay of two or three months, it was thought best to put the case plainly before the patient's relatives, and act according to their decision; which being done, they determined that the reduction should at once be attempted.

On account of the woman's pregnancy it would have rendered her in a worse condition had bleeding, nauseating doses of antimony, or other means of lessening her powers been resorted to, as usual, to facilitate the reduction; they were, therefore, not had recourse to.

Being desirous to make use of as little violence as possible in attempting reduction, I determined on trying Morgan's method of extension of the leg with the foot in the crutch, although I scarcely dared hope it would be successful, and had not yet had any personal experience of its efficiency.

The mode in which this operation was performed has been detailed above, and I have only to add that the foot being made the fulcrum upon which the long lever was to be made to act so as to lift the head of the thighbone out of the ischiatic notch, it was necessary that it should have a firm support to prevent it yielding, and that this was effected by jamming the foot in firmly between the outer fore part of the pelvis to the right of the pubic symphysis, and the inside of the upper part of the shaft of the thighbone. The leg was drawn a little downwards and inclined across the other limb, so that it acted powerfully to lift the head of the bone out of the notch; and immediately this was done, the iliacus and pectineus pulled it into the hip-pan. The object of the transverse bandage around the pelvis was to counteract it together with the upper part of the thigh, being forced to the right side, which would have relieved the thigh from the force intended to be applied against it.

The result of this proceeding was highly satisfactory; the reduction was effected in a very few minutes and with little violence, and the bone returned to its socket with a sufficiently distinct report as to preclude all doubt, had there been any, of the previous nature of the accident. By her own wish, at a week's end, she left the hospital, but a fortnight after returning home the bone was again displaced, whilst moving in bed; but on this, as on all the other occasions, except the fourth, was restored by her own effort.

When I saw her again, nine months subsequent to her confinement, she had not had any recurrence of the dislocation; but she limped a little in her gait, and flinched when the head of the thighbone was pressed into the acetabulum; whether this depended on rheumatism or any other cause was not very apparent.

DISLOCATION OF THE RIGHT THIGHBONE BACKWARDS AND UPWARDS UPON THE DORSUM ILII, TWENTY-ONE TIMES.

Eliza Goddard, aged thirty-six, admitted into Dorcas's Ward Jan. 6, 1847, at eleven P.M. Whilst pulling off her stocking this evening, on going to bed, had dislocated her right thigh-bone on the dorsum ilii, for the nineteenth time within the last twelve years. The accident first occurred on the 1st of May, 1835, in consequence of her slipping down on a piece of orange-peel. It remained unreduced till the 29th of the same month, when it was replaced by Sir Astley Cooper with pulleys, after an extension of four hours and a half. The second time the dislocation was produced in stooping, and was reduced by Mr. Callaway with the pulleys. The third and fourth time it occurred as she was sitting down; reduction by pulleys; third time by Sir Charles Bell, fourth time by Mr. Callaway. The fifth time it was displaced whilst stooping, and the sixth as she slipped in going up stairs carrying water. On both these occasions the bone was replaced by Mr. Bransby Cooper with the pulleys. The seventh dislocation was produced by her shoulders being violently shaken, and was reduced with pulleys by Mr. Callaway. She slipped down and occasioned the eighth displacement, which was reduced in the same way by Sir Charles Bell. Having dislocated the thigh the ninth time, as she was sitting down, it was reduced at her own house by Mr. Renwick, who made her stand up behind a chair, and whilst she supported herself on its back he took hold of her foot, bent the knee, and, forcibly rotating the leg outwards, the head of the bone immediately moved into the socket. The tenth dislocation happened in stooping, on which occasion she was brought into Elizabeth's Ward, April 27, 1837, and the reduction was effected by Mr. Tyrrell with pulleys. She remained in the house till the 27th of June following. The following eight times the bone was dislocated by turning in bed, kneeling, stooping four times, and slipping down twice. The reduction on each occasion was effected by pulleys, and at Guy's Hospital, except once, at home, by Mr. Callaway. She says that when she is much agitated, or when her bowels have been relaxed for two or three days, she expects the dislocation will recur, and that it does without her making any great exertion. My dresser, Mr. Leeson, who in the afternoon of this day had assisted me in Judge's case, thought he would try the same mode of reduction with his foot in the crutch, and succeeded without difficulty. After this she became night-nurse in the hospital for a short time, but soon left, and returned home.

March 5: Whilst stooping she dislocated the thigh the twentieth time, but had nothing done till March 16, when she was readmitted into Dorcas' Ward, and the dislocation was again reduced by Mr. Leeson, with the heel in the crutch, the bone returning with a snap. Two nights after, whilst in bed, the twenty-first dislocation occurred. Extension, with the foot in the crutch, was again tried, but did not succeed. For some reason which I am not aware of, being absent from illness, no further attempt was made till the lapse of ten days, when extension was made with pulleys, and in vain; but a week after the dislocation was reduced, with the foot in the crutch, by Mr. B. Travers, without difficulty.

November. I saw her, and she has not had any recurrence of the dislocation since March last.

Remarks.—The recurrence of dislocation of the jaw and at the shoulder-joint is far from uncommon, though I do not recollect an instance of its so frequent repetition in *any* case as in that just mentioned, which is still more remarkable, as the hip-joint, from the great depth of its cup, and the constant bracing of the large muscles, which keep the head of the thigh-bone close up to the corresponding articular surface, is the least liable to dislocation. The frequent recurrence of the accident, and the ease with which it happened, in this patient, can only be accounted for by presuming that the rent in the capsular ligament, probably at first large, was increased by every successive dislocation; and it is not at all unlikely that the round ligament was also at one time or other torn through. Generally, the reductions were effected without much difficulty. Not having been present, I am at a loss to understand under what circumstances the bone on the last occasion could not be reduced as readily as before in the first two attempts, more especially as it returned easily on the third effort.

DISLOCATION FORWARDS AND DOWNWARDS INTO THE THYROID HOLE, WHICH SLIPPED DURING REDUCTION UPON THE PUBES.

John Colebert, aged fifty-five, admitted into George's Ward, Sept. 8, 1847. Two days ago, whilst at work in a gravel-pit, was overwhelmed by an earth-slip, and had his left thigh-bone dislocated into the thyroid hole. On his admission, the usual signs of the accident were distinctly apparent. After bleeding to faintness, the patient was laid upon his right side; extension downwards with pulleys was then made, and, a bandage having been passed round the thigh close to the crutch, the upper part of the thigh was drawn upwards and backwards, with reference to the trunk. In doing this, the head of the bone moved and got upon the horizontal branch of the pubic bone, producing the dislocation forwards and upwards. The patient's position was then altered; by laying him flat on his back, and the pelvis being steadied, the head of the bone was pushed outwards by the hand till it dropped into the hip-socket. The reduction occupied about half an hour. This patient was admitted under my colleague, Mr. M'Murdo, who kindly allows me to make use of it.

Remarks.—The conversion of one form of dislocation of the hip into another, during the attempt at reduction, is mentioned by surgical writers, but I have never seen it, that I recollect. The dislocations of the thighbone backwards are those in which such conversion is most likely to occur, as it generally does.

Of the dislocations forward, changing, I know but of two instances—the present case, in which the head of the bone rose upon the pubes; and another, which Mr. Green related to me of a dislocation into the thyroid hole, which, during the reduction, slipped back into the ischiatic notch. This change of place may be caused by a wrong direction given to the extension made on the upper part of the thigh; or the patient, in striving to relieve himself from the pressure made by the extension, may twist his pelvis in such way as to dispose the head of the thighbone to change place without returning to its socket. Of course, whatever position the head of the bone may assume, the reduction of the dislocation must be attempted with reference to it.

I may take this opportunity of stating, in reference to the age at which dislocation of the hip may occur, that Mr. Stanley told me of a case of dislocation into the thyroid hole, of a man of ninety-three, which was reduced and did well. Mr. Benj. Travers had, in this hospital, a case of dislocation into the ischiatic notch, in a boy of five years old, which also was reduced

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M. Vender, a person of great property, has lately died at Paris and has left the sum of 1,500,000 francs, for founding an asylum for indigent persons advanced in life, of the liberal professions, such as physicians, advocates, and servants.

The Baron de Choiseul has resolved to found, in the village of Digoin, a hospital, which he intends to build and endow.

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A COURSE

OF

LECTURES ON SURGERY.

BY

SAMUEL COOPER, Esq., F.R.S.,

Professor of Surgery to University College, London; Consulting Surgeon to London University Hospital, &c.

Lecture XXIV.

Gentlemen,—In the last lecture a general description of the arteries was given, and the process by which nature repairs the injuries to which they are liable was dwelt on. We may now proceed to inquire in what way the indications mentioned for the treatment of a wounded and bleeding artery may be best fulfilled. A description of the mechanical appliances of which the surgeon is accustomed to avail himself must here be given. With the form of the tourniquet you are all familiar, as a temporary expedient applicable in hemorrhage from the limbs, to which its operation is limited. It consists of a band securing itself by a buckle, a pad, and two brass frames, the upper one of which is furnished with two rollers, and the lower with four, over which the band is passed, and by means of which a free action is facilitated as often as the screw is turned which tightens the bandage round the limb. The undue and painful pressure of the metal of the instrument is obviated by the pad, over which the buckle is fastened. By the use of this instrument the exact amount of pressure desirable may be secured to any given part of the limb by the action of the screw and pad: it may be left slackly round a limb and tightened at a moment's notice; and, as it can be maintained at a proper degree of tension without the aid of an assistant, it is a most valuable instrument to the surgeon. I have said that its application is restricted to the limbs, and only temporary in its use: the pressure necessary to stop the flow of blood through an artery has an equal effect upon the return of blood through the veins, which cannot be permitted long on account of the risks of mortification. You may have witnessed the security from dangerous loss of blood, with which by its aid the operator can proceed to amputate a limb, and afterwards take up the large arteries. You may have also seen the situation of the smaller arteries disclosed upon the momentary relaxation of the instrument, and the facility with which the flow of blood has been again stayed while the operation has been carried on to its conclusion. Sometimes, after a severe wound of an artery, a few minutes must elapse before the surgeon can adopt the requisite measures for securing the artery. In such cases the tourniquet is of great importance, as by the pressure it produces the supply of blood to the orifice is at once cut off. In hospitals, where the aid of a trusty assistant is constantly at hand, the tourniquet is less frequently employed. In this hospital it is seldom used in amputations; pressure is made with the fingers; the blood is less turgid, and flows less freely, when the artery is in this manner alone subjected to compression. But whether employed or not in the first stage of hemorrhage, other measures soon become absolutely necessary. A far more important and, indeed, indispensable means of permanently stopping bleeding is the *ligature*. When the ligature is placed round the mouth of an artery, the hemorrhage instantly ceases, and contact is maintained between the opposite sides of the artery until they have grown together and effectually secured the patient against the risks of bleeding. The ligature is by far the safest plan of preventing bleeding from large arteries. The pressure it causes is applied in a more direct manner, and on no larger surface than is necessary. Any large artery may be tied immediately it is divided, while to many of the most important the tourniquet is inapplicable. You must always bear in mind the maxim which has become established in surgery, to tie arteries separately. No nerve, vein, or portion of the flesh should be included within the noose. Where this rule is neglected, not only is great pain caused to the patient, but the ligature itself is liable to become loose as the flesh or other substance sloughs; and further, the pressure by which the internal coats of the vessel are to be cut through is entirely prevented, and the first purpose of the ligature unobtained. In tying an artery the extremity of the vessel is to be taken hold of by a pair of artery-forceps, or by a tenaculum: the former always when the vessel is large and prominent. Just below the end of the instrument by which the artery is held an assistant should place a ligature, not too thick, in the form of a noose, round the artery. The noose is then to be drawn tight, taking care that it does not rise above the mouth of the artery, and a knot is made.

More than one ligature on that side nearest the centre of circulation will be necessary if the artery is beyond a certain size, as the blood makes its way through other communications into the continuation of the vessel nearest the wound. Generally speaking, when a large artery is not entirely divided, but only punctured, it is best to expose the vessel first by incision, and to place a double ligature under it, with an aneurism needle, applying one portion above the wound, and the other below it. The flow of blood through the anastomosing branches is thus prevented. The time of separation of ligatures varies with the size of the artery from five to twenty-one days. When they remain attached beyond a certain time, they should be gently twisted upon dressing the wound, and in this way they will soon be detached. *Compression* is a plan adopted when the escape of blood is not from any large artery or arteries, but from a great number of smaller ones, and where the ligature is on this account unavailing. It is made by bringing the opposite sides of a wound together, and applying over it a compress and roller. It is not adapted to the case of hemorrhage from a large artery, except in those instances where the vessel is in immediate contiguity to a bone, against which it may be compressed, as in bleeding from the temporal artery, or where the wound is very small. Small reliance can be placed on this as a means of suspending or preventing hemorrhage, as the compress is very apt to slip off, or get loose; the wound thus requires constant watching. The next indication is the removal of foreign bodies from the wound, and is of great importance, as, however neatly the external surfaces may be brought together, if an extraneous body remains, great pain and swelling, with redness, suppuration, and sloughing of the parts, will follow. That surgeon has no excuse who neglects to provide for the fulfilment of this indication in an incised wound; the parts can at the first be easily examined, and the foreign body removed, without great trouble to the surgeon or pain to the patient. It may be as well to add that your patient would have a right of action against you at law for the damages he might sustain, should you allow a feeling of supineness to restrain you from your duty. Although extraneous substances are very commonly met with in contused and lacerated wounds, and incised wounds are generally free from such complications, nevertheless, the surgeon often has to deal with wounds caused by glass and other brittle articles, which break in the wound, and leave a portion of the material behind.

The presence of such substances is a source of great irritation, and the removal should immediately follow the stoppage of bleeding. The blood itself is never regarded by surgeons in the light of an extraneous substance when present between the surfaces of wounds, the removal of which is necessary in order that union by the first intention may take place. The third and last indication to be mentioned is to keep the surfaces of the wound in which bleeding has been stopped, and from which foreign substances have been removed, in close contact, so as to promote what is called *union by the first intention*. Two processes are recognised by surgeons by which wounds become healed. In one pus is produced, and granulation and new skin are formed; in the other it is entirely successful, no suppuration whatever taking place. The great advantages of this last method are the rapidity of the process, the exemption from the pain incident to exposure of raw surfaces, and the greater permanence and soundness of the cure. To these may be added the recommendation of freedom from the delays and pain of suppuration, and the prevention of the unsightliness of a cicatrix. It is observed, that the raw surfaces of an incised wound, when fairly brought together, have a strange tendency to unite after a certain time. This disposition of wounded surfaces to grow together is susceptible of some remarkable illustrations. Baron Larrey relates a case in which the nose of a person was depending only by a slight portion of the skin from his face; his assistant was about to cut through the connection, when Larrey interfered, joined the separate parts, and succeeded in saving the organ. Such cures are not rare, and are well authenticated. In promoting this process the office of the surgeon is simply to secure the conditions under which Nature advances her work. These are very simple—the edges of the wound must be brought and kept accurately together; at the same time the general state of the system must be attended to. The process of union by the first intention is one that should be well considered, as one of the most important doctrines of modern surgery. When the vessels of a wounded surface have ceased bleeding, the extremities become impervious to the blood itself, which can no longer traverse that course. It is then that coagulating lymph or fibrine is effused, to be generally absorbed and become the bond of union between the living parts. This is the first and most simple connection that takes place between the two sides of a wound. The blood, which sometimes intervenes, has been classed among extraneous bodies; its presence hinders the progress of this most desirable kind of union, and the best surgeons now regard its removal as an important indication. When the agglutination, which takes place shortly after the sides of a wound have been brought together, has been completed, vessels extend into the coagulating lymph, which promotes an intercourse between the two sides of the wound. Through these newly-formed channels of communication, which penetrate the lymph effused on the divided surfaces, the blood flows freely. We are not able to explain with scientific clearness the precise manner in which this process is brought about—whether the new vessels are extensions from the old ones, or whether they arise in the uniting medium.

LECTURES ON GENERAL PATHOLOGY,

DELIVERED TO THE

FACULTY OF MEDICINE

DURING THE PRESENT YEAR,

By PROFESSOR ANDRAL.

Reported for the *Medical Times* by D. M'CARTHY, M.D. Paris, &c.

Second Series. Chapter IV.—(*continued*).

Besides the substances which we have enumerated as frequently met with in expectoration, foreign bodies are also found, having been inhaled from the atmosphere, or having passed into the respiratory organs instead of being conveyed to the stomach, to which they were destined: thus food or medicines may be rejected; amongst the latter some kermes minerals, for instance, communicate a particular colour to expectorated matter, a fact which the practitioner should be aware of, in order that he may not mistake for the effects of disease, the peculiar action of some drugs. Let us now inquire into the diagnostic value of expectoration in various maladies.

In acute laryngitis, simple or puriform mucus may be rejected: when a certain quantity of pus is suddenly thrown up, it points to a submucous abscess of the larynx; false membranes secreted in the larynx may also be seen, as in variola, for

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instance. In chronic laryngitis, blood, expectorated in small quantities, indicates an ulcer of the mucous membrane; if the amount of blood be at all considerable, its source is not in the larynx. A chronic form of croup has been described in which the patients cough up false membranes, and this circumstance often exercises a most favourable influence upon the progress of the malady. Polypous concretions, and vegetations formed in the laryngeal cavity, have been rejected; also pus from an abscess developed in the organ, as in a case published by Dr. Pravaz, of Lille: a tumour, soft and fluctuating, had been previously recognised by the introduction of the finger, and disappeared after the sudden expectoration of a certain quantity of purulent matter, with which two small concretions were also thrown up. The same author relates in his inaugural thesis a case in which two hydatids were found in the ventricles of the larynx, but we have never ourselves observed any instance of the kind.

Acute bronchitis is not in its first period attended with expectoration; but, as the disease progresses, the cough becomes loose, and a colourless, transparent mucus, more or less viscid in its nature, is rejected, occasionally streaked with blood if the cough be violent. This matter gradually becomes less transparent, and acquires a puriform appearance, decreasing at the same time in abundance, in proportion as the case progresses towards a favourable termination. In some patients the expectoration is puriform from the first, in others it never assumes that character. Occasionally, even the cough is dry from the beginning to the end of the disease. In chronic bronchitis, the expectoration usually consists of a slimy fluid, more or less puriform in appearance; when dyspnœa is present, this matter is very viscid, and generally spumous. It is sometimes constituted by a homogeneous liquid, which bears the greatest resemblance to the expectoration in consumption, from which neither chemistry nor the microscope is able to distinguish it. The abundance of the rejected fluids may be very considerable, particularly in the aged, the general condition of the system suffering at the same time much less than it would, *à priori*, seem rational to suppose. The odour of the matter is not characteristic, and may accidentally acquire great fetidity. In some cases of chronic inflammation of the bronchi, no expectoration is observed; in others a peculiarly granular mucus is thrown up, which has a remarkable tendency to solidity; and in both these cases, pulmonary emphysema often follows bronchitis.

During the first two days of pneumonia, characteristic expectoration is seldom noticed, but after this period the rejected matter is viscid, transparent, spumous, and rusty in colour; as the disease advances, this fluid becomes darker and less frothy, and gradually resumes its natural hue if the malady terminates favourably; if, on the contrary, it becomes darker and more viscid, or brown and more fluid, the prognosis acquires greater gravity. It has been often said that where the colour of the expectoration resembled that of the juice of stewed prunes, the circumstance indicated diffused suppuration of the lung; we believe that it points more to increased severity of the case than to that particular fact. In the aged, the expectoration is often of a reddish grey, and may completely be suspended some time before a fatal issue, either from a real cessation of the morbid secretion, or more frequently from loss of power to reject it. In the pneumonia of children no expectoration takes place, and when this disease is a complication of other ailments, consumption for instance, the rejected matter is often deprived of its characteristic appearances. M. Remack, of Berlin, states ("Archives," January, 1846), that in the expectoration of pneumonia, small concretions are rejected, constituted by fibrine, and incarcerating purulent corpuscles in their network; the shape of these concretions is the same as that of the bronchi: we have several times assured ourselves of the accuracy of this observation, which may assist considerably the diagnosis of doubtful cases. Chronic pneumonia presents no special expectoration.

Œdema pulmonis and emphysema are not attended with any characteristic appearances in this respect. At the beginning of attacks of asthma, the expectoration is usually suppressed, and returns at the close of the paroxysm. Pulmonary apoplexy usually causes hemorrhage and the rejection of a small quantity of blood, but not constantly. In gangrene of the lung, the sputa are thin, dark, and extremely fetid.

Pulmonary consumption at its various periods occasions an expectoration, the characters of which it is important to be well acquainted with. Mucus, pus, blood, concretions, &c., may be rejected, and their relative signification should be clearly understood. During the first period of phthisis, the cough is frequently dry, or followed merely by the expulsion of pure mucus; blood is often rejected at this period, with the characters which we have elsewhere described. Calculi, also, may be expectorated, formed of crude tubercular matter. When softening occurs, the appearances are usually those observed in bronchitis, the sputa being sometimes streaked with a substance of a yellowish, dead-white colour, supposed to consist of detached tubercular secretion; also, occasionally, granular agglomerations of tubercle are found floating in the mucus; hæmoptysis may occur at this stage; but when cavities have formed in the lung the appearances are more characteristic. A large tubercular mass may be expelled suddenly, but in general its elimination is gradual. The discharge is thus formed of three parts, viz., bronchial mucus, tubercular matter, and a purulent fluid secreted by the walls of the accidental cavity. According to the relative proportions of these three elements the expectoration varies in its characters. In most subjects it separates into two layers—a semi-transparent, gummy fluid, and a more opaque, solid matter. The latter may be suspended in flakes, or float on the surface of the fluid in small round patches (nummular expectoration). At a still later period of the disease, the semi-transparent matter is no more to be found, and the matter consists merely of a thick, purulent fluid. At this stage of phthisis, hæmoptysis is more rare than in the first periods. The odour or taste of the expectoration is not characteristic, in spite of the Hippocratic aphorism, that in consumption it is at first salt, and afterwards sweetish. The quantity rejected varies greatly, not only in several, but even in the same individual. Shortly before a fatal termination the expectoration may be suppressed, or become looser from the enlargement of the caverns. Microscopic examination shows in the sputa of consumption the presence of pus and blood corpuscles, of epithelium, of false membranes, and of pulmonary tissue. When a piece of tubercular lung is examined with the microscope numerous corpuscles can be seen, with the particular form described in the first series of these lectures. But it is very uncommon to meet with these special granulations in the sputa, being, as it would seem, dissociated before they are expelled from the chest by the efforts of cough. It has been said, and it is quite true, that tubercular sputa sink in water, and burn with a flame when desiccated; but these characters cannot distinguish them from the sputa of bronchitis, because they result from the presence of pus, which may exist in one disease as well as in the other.

When hydatids form in the pulmonary organs, they may be expelled by expectoration. The sputa of cancer of the lung are said to resemble gooseberry-jam in colour and consistency, but this fact requires further confirmation.

In diseases of the pleura, the expectoration is usually absent, or resembles that of bronchitis; but pleuritic effusions may suddenly be discharged by the bronchi, after ulceration of the surface of the lung. True pus is thus rejected, and penetration of air into the pleuritic cavity soon communicates to its contents a fetid alliaceous odour. The consecutive discharge may continue for a considerable time, and may be recalled after temporary cessation by change of position of the subject, by which a change is also effected in the relative situations of the pleuritic effusion and of the pulmonary fistula. Even after long duration, these cases are susceptible of recovery.

In diseases of the pulmonary organs, the sensibility of the patient may be modified, and furnish signs to the diagnosis.

Many acute or chronic diseases of the larynx may exist without pain, and present a striking contrast between the great change of the voice and the total absence of suffering. When pain accompanies ulcers of the larynx, it is more marked when the sore occupies the vocal chords, or is situated above them, than when it is placed below the ventricles. Affections of the trachea are seldom painful. Acute bronchitis is usually attended with a distressing sense of heat within the chest, which increases with the cough, or with the inspiration of cold air. This pain may occupy the sternal region, or be complained of between the shoulders. Pneumonia, like other inflammations of parenchymatous organs, is seldom of itself a painful disease. "Pulmonum inflammatio," says Boerhaave, "plus affert periculi quàm doloris;" a perfectly accurate remark, the stitch in the side, which so usually accompanies pneumonia, being in most cases due to pleuritic complication. Many consumptive patients suffer very little, others, on the contrary, are frequently troubled with, pain, due to the participation of the pleura in the disorder—a fact demostrated by the adhesions found within the thorax of these subjects on *post-mortem* examination. Some patients feel a sort of tightness round the chest, and are fully aware, from the nature of the sensation, that their respiration is not complete; in others a sense of uneasiness is complained of in the superior part of the chest; and in these cases, on dissection, caverns are often found in these regions, separated from the pleura by very thin walls. Occasionally percussion of the chest, and even auscultation with the stethoscope, cause pain in phthisis. Pain between the shoulders is very generally looked upon as a sign of consumption; we believe that the importance of this symptom has been much overrated; it seems to us to be merely a muscular pain, due to debility, and observable in most cases of chronic disease; it is, for instance, almost constant in chlorosis. Hydatids and cancer of the respiratory organs are productive of suffering only when the pleura is affected. Acute pleuritis seldom exists without pain; its intensity is variable from a trifling to a most intense stitch in the side. It is usually seated below the breast on the affected side, and increased by motion, pressure, cough, or inspiration. It may extend to the whole thoracic wall, or be limited to the cartilaginous edges of the ribs; in diaphragmatic pleurisy, it spreads to the epigastrium, and even to the abdominal parietes. An ingenious explanation of this pain has been offered by Dr. Beau, and seems confirmed by anatomical investigation. That gentleman attributes it to inflammation of the intercostal nerves, which, in the posterior third of their course, lie in close apposition with the pleura. Irritation of a nerve, causing pain to be felt in the region of its terminal distribution, excitement of the posterior part of these nerves in pleurisy, naturally occasions a suffering which is referred to the anterior region of the thorax, immediately below the breast.

In our next lecture we will study the physical signs of thoracic disease.

French Hospitals. — The budget of the Parisian hospitals has been voted by the municipal Council for 1848. The cost for the maintenance of these charitable institutions is about 46,480,967 francs.

The Russian Government has resolved forthwith to erect seven new lunatic asylums, viz., at Moscow, Kasan, Odessa, Riga, Wilna, Charkow, and Kiew.

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PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meeting of Jan. 24; M. POUILLET in the Chair.

HEMATOLOGY.—M. Poggiale and Dr. Marshal forwarded to the academy the analysis of the blood of a patient affected with encephalitis, consequent upon erysipelas of the face. The blood was removed at the same time from the temporal artery and from a vein of the arm, and the two liquids were separately examined. The following was their relative composition:—

	Arterial Blood.	Venous Blood.
Solid matter ..	177	181
Water.. ..	822	818
Water.. ..	822	818
Fibrine ..	6·17	6·08
Albumen ..	66	61
Globules ..	97	106
Fatty matter..	1	1
Salts	6	6·8

INSALUBRIOUS ARTS.—A paper was received from M. Leclaire recommending the substitution in the arts of colours fabricated with preparations of zinc, instead of those containing salts of lead or copper.

D. M'CARTHY, D.M.P.

State of the Brain in Insanity.—Dr. Seymore, in his work on Mental Derangement, makes the following remarks:—"Where perception and volition are sharpened beyond all measure, there are remedies which quiet pain and diminish sensibility, in many cases not absolutely removing the pain, but preventing the brain from perceiving it in a highly-aggravated form; thus, in paroxysms of gall-stones, or sciatica, or in nephritic colic, the pain is removed partly by the solution of spasm afforded by the remedies, partly from the increased sensibility or perception of the brain being diminished. In inordinate actions, also, the causes being investigated, appropriate remedies may be found, such as the shower-bath, metallic tonics, and the like. Mental derangement is one of these forms of increased, or irregular, or diminished perception and volition, and it exists in some instances scondarily to diseases of organs at a distance, as of the uterns or stomach, or in cases of fever from the poison of the atmosphere, or putrid miasmata from different sources. The brain, like other organs of the body, is liable to inflammation, and which requires to be treated as inflammation is treated in other parts of the body; and it is singularly liable, from the particular arrangement of its blood vessels, to disturbance of the circulation; either the blood not finding its usual ready flow into the right side of the heart, from some obstacle in the complicated arrangement of its veins (sinuses), or from disease of its arteries, which unite (anastomose) one with another in a most remarkable manner. The diseases of the coats of these vessels give rise to some of the most serious diseases of the brain. As life advances, that portion of the human body most influenced by physical laws tends first to decay. The elasticity of the larger arteries becomes diminished by, first, soft fatty matter (termed atheroma) deposited under the inner coat, or by bone itself. The tube, previously elastic, and easily and equally distended by the current of blood, becomes unequally distended, and even brittle in parts, so as to give way under any considerable or sudden acceleration of the circulation. When such an accident occurs in the brain, blood is thrown out, the patient becomes senseless, and, when proper remedies have been applied, awakens as from a trance, with much confusion and distress, and often pain in the head, and finds the arm and leg, on the opposite side to that in which the vessel had burst, deprived of motion, and often, in a great degree, of sensation."

Lunatics in England and Wales.—According to the estimate formed by the commissioners for the 1st of January, 1847, which does not include imbecile persons, whose infirmity has been coexistent with loss, or is the result of the decay of natural powers, the following is the number of lunatics in England and Wales:—

	Persons.
1. In the county asylums, hospitals, and licensed houses, 3674 private patients, and 9662 paupers; together	13,226
2. In Bethlem, and in the naval and military hospitals..	606
3. Paupers in poor-law unions and places under local acts	8,986
4. Paupers in Gilbert's unions, and other places not in union . ..	176
5. Also 307 of 542 single patients, found lunatic by inquisition (235 being in licensed houses	307
6. Other single patients in private houses, under the charge of persons receiving profit	130
7. The excess of pauper patients in workhouses, &c., estimated by the visiting commissioners as, at least, one-third over the number returned by parish officers.. ..	8,053
8. Criminals in gaols	32
	26,516

Reckoning 12,397 for England, 3413 for the pauper lunatics in Scotland, with the private patients in each country, there are at least 40,000 persons afflicted with insanity.

Hysterical Mania.—There is a species of aberration of the intellect," says Dr. Reid, in "The Journal of Psychological Medicines," occuring in young females, which evidently is complicated with hysteria; the peace of a whole family is for the time totally destroyed by the whims, extravagancies, perverseness of temper, and violence of the patient. Some of these cases border closely on insanity, but others, when protracted beyond a certain period, gradually merge either into mania or melancholia, and it then becomes absolutely requisite to remove them from the society of their friends, and to place them under the charge of some practitioner who is experienced in the treatment of such cases. They are often termed nervous disorders, but these, unless closely watched, and carefully treated, are prone to degenerate into more fixed and permanent affections of the brain. The following may be taken as one of the above description of cases. Miss ——, aged fifteen, of tall, robust frame, menstruating irregularly, had laboured under various forms of hysteria for a short time past, and complained of violent pain in the uterine region, tympanitic distention of the abdomen, torpid bowels, headache, sense of suffocation, and of such a constant feeling of restlessness that it was difficult to keep her in the room; she gradually became extremely violent, and her long-continued fits of screaming often alarmed the whole neighbourhood; on two occasions it was found requisite to put her under restraint. The medical attendant was nearly worn out by the constant attendances required day and night to introduce the catheter, &c., but he almost invariably found that the bladder contained little or no urine, although the attendants asserted positively that none had been passed naturally. When I saw her I felt convinced that such must have been the case; her pulse was natural, her strength good, and there were no symptoms which must have existed had the assertion been true. The greatest distress was occasioned in the family by the state of the patient during two months of violence, as they were unwilling that she should be separated from them; at the end of this period a sort of stupor came on, and continued for a week, on recovering from which, the catamenial function continued regularly, symptoms of mental recovery became stronger, and for some years past there has not been the slightest appearance of a similar attack. I should add that, on very close watching, it was discovered that the patient had regularly passed urine, but had contrived to avoid the notice of the nurse for some days at such times.

Urea in Perspiration.—Professor Landerer, of Athens—quoted in "The Monthly Journal of Medical Science,"—says, the quantity and condition of the secreted urine depend on the quantity and quality of the fluid ingesta, and the greater or less transpiration. The urine consequently becomes more concentrated during summer, in warmer countries, than in winter, and this may be discovered by the increase of the specific gravity The increased quantity of salt in the urine, dependent on this concentration, is probably the cause of the numerous calculous affections in warm countries; while the vegetable nourishment, and the use of fruit, especially grapes, is probably the cause of the rarity of sand and gravel. Almost all strangers in southern countries become affected with a peculiar exanthema, from the irritating effect produced on the mucous and sebaceous follicles, by a portion of the solid contents of the urine finding its way to the skin. Dr. Landerer, to convince himself of the presence of these salts, collected the washings of flannels and shirts—a fluid possessing a striking odour of perspiration, of a very salt taste, and slightly acid properties. This fluid, evaporated to a yellow syrup, deposited, after exposure to cold for some days, a granular mass of phosphates; the remainder, digested in alcohol, formed a yellow solution, which, on spontaneous evaporation, left a substance possessing a strong odour of perspiration, and a sweet taste. This, dissolved in water, and decomposed by diluted oxalic acid, deposited, after thirty-six hours, a precipitate of small crystals of oxalate of urea. To make the presence of urea more evident, these crystals were dissolved in water, and the solution decomposed by carbonate of lime, to separate the oxalic acid from the urea. The supernatant fluid was then evaporated to dryness, and the residue dissolved in boiling alcohol. This was again evaporated, and a few drops of nitric acid added; from this, after cooling in a refrigeratory, crystals of a silky lustre were deposited, which, separated from the mother water, and dissolved in distilled water, possessed a cooling, slightly acid taste, and crackled in the fire. From all these operations, it was believed that urea was present in the perspiration, and that muriate of soda, traces of sulphates, acetates, and lactates, osmazone, and a clear substance, easily soluble in ether, were also present.

Thoracic Aneurism —The following is the analyses of the mode of termination in all the cases of thoracic aneurism collected by Mr. Crisp in his work on Diseases of the Bloodvessels:—"Of ninety-eight cases of aneurism of the ascending aorta (seventy-six males and twenty-two females) the terminations were as follows:—Thirty opened into the pericardium, six externally, four into the left pleura, one into the right, three into the pulmonary artery, three into the right lung, three into the superior cava, two into the œsophagus, two into the right auricle, two into the right ventricle, one into the left, one into the trachea; seven died from pressure on the trachea and bronchi, six from serous effusion into the pericardium and pleura, two from phthisis, two from syncope and exhaustion, two from coma, one from each of the following: regurgitation into the ventricle, compression of vena cava, of pulmonary artery, cerebral congestion, apoplexy of the lung, distention of stomach, pericarditis, bronchitis, and hæmoptysis; four died suddenly, without rupture of the sac, and in eight the cause of death was doubtful. In forty-eight cases of aneurism of the arch of the aorta (thirty-five males and thirteen females), four opened into the trachea, two into the pericardium, two into the œsophagus, two into posterior mediastinum, two into right pleura, two into the left, two into the bronchus, one into the pulmonary artery, one into the superior cava, one into the lung, one externally; twelve died from supposed pressure on the trachea and bronchi, three from suffocation, two from hydrothorax, and one from each of the following: pressure on the recurrent laryngeal

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nerve, pressure on the cava, hemoptysis, dysentery, serous apoplexy, rupture of the descending aorta, and external violence; and in six cases the cause of death is not stated. Of the twenty-one cases of aneurism of the descending aorta (all occurring in males), four opened into the right pleura, four into the left, five into the œsophagus, two into the left bronchus, and one into the left lung; two died from pressure on the trachea and left bronchus, one from exhaustion and suffocation, one from apoplexy; eight cases are described as aneurism of the thoracic aorta, and their termination not given.

Spurious Menstruation.—Mr. Whitehead says, in his work on Sterility, On examination with the speculum, inflammation or ulceration of one or both labia, or of the cervix uteri, complicated, in some instances, with warty excrescences growing from the cervix, or from some part of the vaginal membrane, vaginitis, &c., was met with in every case, without an exception. Fifteen cases were submitted to this kind of examination at the time the blood was flowing. In not one of these did any fluid whatever escape from the interior of the uterus; the orifice being completely occupied at the time by a plug of transparent mucus. On removing the accumulated secretion by means of a piece of lint, the parts were immediately afterwards covered by a coating of blood, which was distinctly seen issuing from innumerable pores on every part of the diseased surfaces, and soon being in sufficient quantity to trickle down into the speculum. This blood was widely different, in its sensible properties, from that collected in the tube during its introduction, or at the os externum; being more florid, more strongly alkalescent, and soon subsiding into a dryish clot, which could be separated from the interior of the instrument in form of a small cake of crassamentum. This was never the case with the former, which remained fluid or soft for a considerable time. The evidence now produced appears sufficient to establish as a general rule, to which I am not as yet acquainted with an exception, that the blood discharged in cases of alleged menstruation during pregancy is furnished, not by the lining membrane of the uterus, nor by any healthy secreting surface—except sometimes perhaps the inferior part of the inner cervix—but by the lower extremity of the uterus external to its cavity, or by the contiguous vaginal reflection, being in a state of suppurative inflammation.

Oxygen from Chloride of Lime.—Dr. F. Keller remarks, Considering the lower price of chloride of lime, it appeared of some consequence to examine the nature of this hypochloride with regard to the generation of oxygen. One half-ounce of common, somewhat moist, chloride of lime, boiled for some time in two ounces of water, yielded 420 cubic centimètres of oxygen, contaminated with a small proportion of chlorine, but fit for all the usual experiments. An equal quantity of the same chloride of lime, heated with a quarter of an ounce of powdered oxide of manganese and two ounces of water, in a retort, in the sand-bath over the spirit-lamp, yielded 620 cubic centimètres of tolerably pure oxygen. Variations in the proportions of the ingredients yielded results which varied but slightly from those above mentioned. It might be presumed that the oxide of manganese increased the quantity of the developed gas, by having yielded part of its oxygen. But this was not the case. The oxide of manganese can, therefore, only have operated by its distribution among the mass, and by its greater capacity of heat; and any other finely-powdered substance, which cannot easily be decomposed, such as powdered glass, silicious sand, &c., must in its place have done the same; and, in fact, on making use of the latter substances, I obtained the same results, and in some instances, where the heating in the sand-bath was undertaken over a charcoal fire, and only gradually increased, a greater quantity of gas was developed. In several cases, where the gas was received over diluted caustic potash, I obtained from half an ounce of chloride of lime, on the average, 650 cubic centimètres; consequently, 14,896 grains by weight, or 6·2 per cent. of pure oxygen.

Periodical Asthma checked by the Sulphate of Quinine.—Dr. J. C. Cain, of Charlestown, U.S., relates the case of a gentleman who has had, during the last nine years, occasional attacks of asthma (the humid or catarrhal variety). Within the last two or three years the attacks have become more frequent; in several of them the nervous phenomena were strongly marked with sudden accession and equally sudden subsidence of the paroxysms. About the middle of April, of last year, the attacks assumed a regular periodical character—coming on every Monday evening about seven o'clock, and lasting until Friday or Saturday. On Friday, July 9, on the subsidence of one of the paroxysms, the exhibition of the sulph. quin. was commenced in the form of a pill, in the dose of three grains three times daily. At the next periodical return, the attack was postponed at least twelve hours, that is, instead of coming on on Monday evening, it did not come on until after daylight on Tuesday morning. This time the paroxysm lasted only two days, and was slight when compared with those he had previously had. The sulph. quin. was suspended during the two days, and resumed on Thursday. The next Monday, the 19th, the paroxysm did not recur, and the patient felt very well. The pills were continued until the 1st of August; and up to the 10th of October he has not had a return of the disease. The foregoing case presents a striking illustration of the heroic anti-periodic properties of the sulph. quin. Its effect here was similar to that frequently observed in intermittent fever, viz.: first, a postponement of the first paroxysm after the commencement of its administration, a diminution of its severity, and a shortening of its duration; and, second, the prevention of the recurrence of other paroxysms. This is another instance, added to those already accumulated which go to establish the fact that in all diseases, in which periodicity is a natural or accidental element, it is truly a specific.

Sulphate of Iron in Prolapsus Ani.—Mr. Vincent, in his "Observations on Surgical Practice," states that he has of late had great advantage in employing a solution of sulphate of iron, one grain to the ounce, in prolapsed bowels, and that an operation may often be dispensed with, and the patient cured, merely by the use of this remedy. Very lately he has had two cases of the worst sort, one of twenty years' standing, with great protrusion and abundance of bleeding piles, which in three weeks was completely cured. The other came from one of the institutions which offer great pretensions in the treatment of these cases. The patient was very bad, having both internal and external piles, and the bowel descended largely and most readily; he was completely relieved in about a month Other cases of a slighter kind have been set to rights in a week. The patient should be kept in bed, so that the bowel may be as much as possible in repose, and after it is cleansed out, a small quantity of the injection should be daily thrown up and retained. Balsams are also well adapted to the disease.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ON A REMARKABLE CASE OF PROTRACTED HÆMOPTYSIS, SYMPTOMATIC OF PRIMARY DISEASE IN THE STOMACH, SUCCEEDED BY VIOLENT EPILEPSY, AND THE RECOVERY OF HEALTH.

By Henry Burton, M.D., Physician of St. Thomas's Hospital.

The history of the case offers a good example of the coexistence of severe gastric derangement with constant headach, copious hæmoptysis, occurring at irregular intervals during four years and three quarters, and with rigid spasm of the lower extremities, followed by the restoration of good health, after the supervention of a series of violent epileptic fits, which quickly succeeded the disappearance of the pulmonary hemorrhage.

The author, after citing the opinion of M. Andral, relating to the influence exerted by different organs on the production of congestion in the brain, and also the opinion of Dr. Copland upon the importance of tracing "the origins and relations of sympathetic and symptomatic phenomena, with reference, not merely to diagnosis, but also to prognosis and treatment," proceeds to describe the case of an intelligent female, aged eighteen years, of a spare habit, and rather under the usual height, who was admitted into St. Thomas's Hospital on the 5th of September, 1843.

She had then been ill with symptoms referrible to the chest and abdomen for two years and a quarter, and for two years the abdominal symptoms had been complicated with copious hæmoptysis, partial loss of voice, and an almost total want of power over the lower extremities. She had been confined to her bed during the greater part of her illness, and the abdominal pain had never entirely ceased; the hæmoptysis had recurred very frequently; the uterine functions had been always regularly performed; and, with the exception of the pulmonary hemorrhage, the patient had never experienced any habitual loss of blood. Copious hæmoptysis recurred seven times after admission in forty-one weeks. The patient returned home in June, 1844, in a much better state of health than she had experienced during the three years preceding, although not entirely cured, and was readmitted a second time in December, 1845, after an interval of a year and a half, with analogous symptoms of gastritis, coexisting with copious hæmoptysis.

After the second admission, copious hæmoptysis recurred three times in thirteen weeks, and slight hæmoptysis daily, until epilepsy supervened, when it ceased entirely.

The author reviews the circumstances which biassed his judgment in the early as well as final treatment of the case, and endeavours to show that the hæmoptysis was dependent on a primary disease of the stomach, and not of the lungs; he notices the inefficacy of the ordinary remedies prescribed upon the supposition of the pulmonary origin of the hæmoptysis, and states it recurred until the irritability of the stomach, indicated by pain and frequent vomiting, was obviated by the use of mercurials; the urgency of the gastric symptoms then began to abate immediately, and the hæmoptysis ceased in twenty days after they were first prescribed.

He quotes the authority of Hoffmann and Mr. Rumsey in support of the opinion that gastric irritation may excite, through sympathy, copious hæmoptysis, independent of any other signs of phthisis, and that it does invariably lead to a deposition of pulmonary tubercles. He disapproves of the use of the acetate of lead in the treatment of symptomatic and copious hæmoptysis, and, in conclusion, expresses his opinion, that whenever the stomach is the seat of inflammatory action, associated with copious hæmoptysis, independent of other disease referrible to the thoracic viscera, the safest plan, in reference to treatment, is to consider the hemorrhage as a salutary act, by which the relative plethora in the lungs is relieved, and the first indication of cure to be the removal of the gastric disease.

DESTRUCTIVE OPHTHALMIA, WITH EXTENSIVE SUPPURATION OF THE CELLULAR MEMBRANE, AND SEVERE AFFECTION OF THE KNEE-JOINT, OCCURING AFTER PREMATURE DELIVERY.

By A. M. M'Whinnie, F.R.C.S., Lecturer on Comparative Anatomy, and late Demonstrator of Anatomy at St. Bartholomew's Hospital.

In the early part of last spring the author was requested to visit Mrs. M., a lady, aged forty, of spare habit of body, but strong constitution and active mind. She had suffered several previous miscarriages, and had now been delivered, on the 7th of March, of a four months' child, which had been for some time dead in the uterus, and it was believed that the system was contaminated by the retention of the decomposed

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fœtus. Much serious indisposition and constitutional disturbance preceded and followed the expulsion of the fœtus, and which manifested themselves locally, on the second or third day after delivery, by inflammation of the contents of the right orbit: it was found that the globe was much more prominent than that of the other eye, and it was apprehended that an abscess might be forming behind the organ; the cornea, which had lost much of its transparency, was nearly concealed by tumefied conjunctiva, of a crimson colour, which distended the palpebræ, and added materially to their projection. Leeches and belladonna had been applied, and mercury also administered, on account of inflammation of the iris and tunics generally. A few scarifications were made into the vascular conjunctiva, with the view of relieving the chemosis.

At this time the patient became weakened by several attacks of uterine hemorrhage, which was arrested by the ergot of rye and cold lotions. The mercury, which had affected the gums, was consequently discontinued. Quinine was now liberally administered, with a sustaining diet.

On the 28th, the vision was entirely gone; and, considering the eye to be irremediably lost, I advised the whole treatment to be directed to sustain the system, and repress the uterine hemorrhage, which had returned, and was producing great exhaustion. The quinine was, therefore, continued, with a larger quantity of sulphuric acid.

In the meantime, the right lower extremity became stiff and swollen; the calf of the leg became swollen and tense, and a large quantity of matter was evacuated by an incision. Abscesses about the knee-joint, and others in different parts of the limb, were opened immediately on being detected: their contents consisted generally of well-formed pus; the integuments were not materially discoloured.

On the 12th of April, the right knee-joint had become the seat of painful swelling, from effusion into its cavity; and the several structures suffered from the effects of the most destructive inflammation. In fact, it was evident that the whole articulation was extensively disorganised. A very large abscess subsequently made its appearance in the upper part of the thigh, and was opened near to Poupart's ligament.

From this time, Mrs. M. steadily improved in every respect. The knee yielded gradually to passive extension, and, though nearly anchylosed, at the date of the last report the patient is able to support herself on the affected limb. The eye was reduced to a third of its normal size, and had receded to the back of the orbit; the tunics had not ulcerated.

The author concluded by referring to published cases, and comments of the president, Dr. Marshall Hall, and others, bearing upon the subject of his paper.

THE MEDICAL TIMES.

SATURDAY, FEBRUARY 5, 1848.

THE POOR-LAW CONVENTION.

The recent exertions of the committee have been both unremitting and arduous.

During the last ten days they have had conferences with three public bodies—the College of Physicians, the Society of Apothecaries, and the Metropolitan Commission. To indicate the interest taken in the public business of the Convention, it is only necessary to say that at these conferences, several of the members of the committee came, at great inconvenience, from considerable distances—the Messrs. Martin from Reigate, Mr. Lord from Hampstead, Mr. Boulger from Bletchingley, Mr. Bottomley from Croydon, and Mr. Vallance from West Ham. Scarcely less praise is deserved by the other gentlemen—residents of the metropolis—for the unhesitating manner in which they have disengaged themselves from the pressure of professional duties, in order that they might support the deputations, and give their attendance at the committees.

The two last committees were most numerously attended, and the discussions of the highest importance. Their results will be speedily made known to the profession.

The next committee meeting will be of great importance. All the delegates who attended the Convention will be specially invited.

Two resolutions were passed on Thursday, which will be received by the profession as no unmerited encomiums to the distinguished individuals whom they honour—resolutions conveying the marked thanks of the committee to Lord Ashley, for his conduct in reference to the last Poor-law Medical Committee of the House of Commons, and to Mr. Guthrie, for the able and incessant exertions he devoted to secure the utmost usefulness and efficiency from that protracted investigation.

Out of between two and three thousand circulars, the committee have been honoured with nearly one thousand returns.

These returns have now been examined, systematically classified, tabulated, and reported on. The labour has been one of very great magnitude and difficulty—amply, however, repaid by the importance of the conclusions they establish, which take a shape the most certain and definite.

The conferences with the College of Physicians, and with the Society of Apothecaries, were most satisfactory. That with the Metropolitan Sanitary Commission was not so promising, but there can be little doubt, looking at the very worthy constitution of the board, that the representations made will not be without a useful and salutary effect.

We shall next week give a report of the interview held with the Commission.

THE COLLEGE OF PHYSICIANS.

The history of the English College of Physicians affords a striking exemplification of the tendency of corporate institutions to debase the powers with which they are invested, when not restrained by adequate provisions. At the period when a charter of incorporation was granted to this college, there is no doubt that the low condition of medical science required some effort on its behalf. Quacks and mountebanks were reaping a rich harvest by operating upon the credulity of an ignorant population, while the education of legitimate practitioners was too defective even to render it possible for them to treat disease scientifically.

At this period, too, the mass of general practitioners was scarcely one step in advance of the motley crew who wandered through village, town, and hamlet, vending those philters and nostrums which were supposed to possess such wonderful powers as not only to play havoc with disease, but also to put to flight in the twinkling of an eye the spirit of evil himself. The apothecary was then twin-brother with the grocer, the surgeon with the barber, and the physician sent to the one or to the other as he required a draught compounded, or an operation performed. Nor, indeed, were the professional acquirements of the M.D. then of the first order; but, being a little in advance of the vulgar crowd, he was looked up to by the more intelligent part of the community as an oracle of medicine. So renowned an order of men deserved incorporation, and *the* "defender of the faith" signed the deed which to this day is the source of all their collegiate honour, power, and emolument. It is rather a singular circumstance that the Eighth Harry, who proved himself such a pestilent fellow to priests, should be so zealous a patron of physicians; and we can only account for it on the principle of his hatred to all that was Roman. Probably his knowledge of the classics was sufficiently extensive to inform him that in former ages the inhabitants of the Eternal City had so little esteem for doctors, that the privilege was not granted to them of building their temple dedicated to Esculapius within the city, but there was assigned to them a meaner place out of the town, whither slaves used to resort.

For upwards of two centuries this college has resisted all the changes which have passed over society in general, and medicine in particular, and we know of few instances in which it has appeared a patron of the sciences. Its constitution is clearly opposed to the interests of a liberal profession, and those who are its best friends acknowledge that, in order to render it an institution adapted to the spirit of the nineteenth century, it must undergo a great renovation. The election of the superior officers of the college has something clandestine in it. The president is appointed by seven elects, and these latter gentlemen choose one another: for, upon the death of one of them, the others meet and fill up the vacancy according to their own will and pleasure. Long service in the profession, or merit, can help no man forward to the post of honour; and, if it is to be obtained, it must be through the votes of the life-governors of the corporation. And yet these gentlemen, only eight in number, exercise a power perfectly independent of the college, viz., that of examining and licensing the extra-licentiates.

But we are told frequently that the power which the college possesses of inflicting punishment on parties who break its laws is very great, even to the committal of an offender to Newgate. It is true the laws are threatening; but, after all, the corporation resembles very closely the ass in the lion's skin. Its appearance is very terrific, but, when its power of injuring is put to the test, we learn, from the authority of an ex-president, that it is "vox et preterea nihil." The lion's claws are blunted, and its teeth decayed by age, though the inclination for prey is as strong as ever. It is a good thing for the profession that this is the case, for the college was wont in former times to exercise its power without much regard to the principles of equity or justice. Educated physicians have been persecuted with unrelenting zeal, while quacks possessing the college licence have only been admonished, or for a season have had their names removed from the lists. Within the last twelve or fourteen years two instances have occurred which strongly exhibit the way in which this college has exercised its power for the good of medical science. A licentiate became the proprietor of a nostrum which he called "Water from the Pool of Bethesda," and the authorities in Pall-mall, hearing of this, sent a person down bottle of the fluid from the celebrated pool; the directions with it were, that it was to be placed upon a shelf, and after some time it would become turbid. This was an intimation that the water was troubled, and then a draught was to be swallowed immediately. The renowned fluid

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was kept as directed, but no change taking place a remonstrance was sent to the doctor, who, with the cunning of a quack, replied, "You bought a guinea bottle, and the quantity is so small that you cannot discover the change which the water undergoes; but if you will buy a five-guinea bottle, you will find that it will become turbid to your utmost satisfaction." This gentleman was suspended *for some time*, and his name left out of the lists, but ultimately restored. In the case of Dr. Harrison, a more severe proceeding was adopted to put him down. He was a physician of liberal education, and with a diploma obtained after a proper examination; as he did not, however, apply for the college licence, proceedings were instituted against him, which not only cost him large sums of money to oppose, but were the source of much anxiety to him. Thus it appears that it is a far greater crime in the estimation of the college to resist its authority, than for one of its licentiates to gull and rob the public by the vending of a nostrum.

But this venerable institution prides itself as being the patron of sound medical education, and we ask, with astonishment, what proofs it can bring forward to prove that it is so? As we examine its history we discover the most palpable indications that all its efforts have been to advance the interests of a particular order in the profession, with but little regard to the promotion of the science of medicine. For years the fellowship of the college was confined to the graduates of Oxford and Cambridge, and it was only to save the corporation from ruin that more liberal measures were manifested towards its despised licentiates. Even now a spirit of hostility and contempt is manifested towards those who constitute nine-tenths of the profession—the general practitioners. They are spoken of by the college authorities as men of an "inferior grade," and no efforts have been spared to make and keep them such. Hence an apprenticeship clause was dovetailed into the act of 1815, and the efforts of general practitioners to obtain for themselves a charter of incorporation have been strenuously opposed. With all the disadvantages, however, under which they have laboured, they have risen in public estimation, and their education is now in every respect equal to that which is required by the college in Pall-mall for candidates to undergo who seek its diploma. It is evident, therefore, that, in order to make this corporation adapted to the spirit of the age, some change must be effected in its constitution. Every member of the profession would rejoice to see it a college renowned for its learning and liberality; and we sincerely hope that the men of science who are connected with it will labour to make it such.

THE SANITARY CONDITION OF RURAL DISTRICTS.

When so much attention is being directed to the sanitary condition of large towns, there is danger that the rural districts will not receive the regard to which they are entitled. No doubt, densely-populated cities, in which poverty, disease, and wretchedness so greatly manifest, should be the first to experience the benefits of sanitary improvements, but it should not be forgotten that in villages, also, there are numerous causes in existence which do not fail to produce malignant fevers and numerous deaths.

There are few districts in the country where typhus does not reign more or less throughout the year, and where the average number of deaths is not nearly as great as in some of our large cities. This is clearly attributable to causes over which we have as much control as over foul drains and ill-ventilated dwellings, and may certainly be checked by the outlay of a sum which would not press heavily upon the inhabitants if collected in connection with the county rates. Hitherto we have had no correct return of the state of the villages and hamlets of this kingdom, and the parties who are most acquainted with the facts are prevented, by circumstances which do not operate in large towns, from making them publicly known. In small rural parishes the persons who could do most to improve the sanitary condition of their neighbourhoods are generally opposed to innovations, which may call upon them to make pecuniary sacrifices; and they would not fail to use their efforts to put down the individual who may have become an advocate for sanitary improvements. Medical men in the provinces are oftentimes dependent upon the squires and farmers, among whom they live, for patronage and support. Now, these renowned worthies are always anxious to keep down not only the poor-rates, but highway-rates also. They are generally, also, the owners of the wretched cottages in which the poor are compelled to live, and to improve those dwellings would cost a sum for which they would receive no additional interest, as the rent is already brought to so high a point that it would be impossible to abstract more money from the little wages which the tenants receive. Many country surgeons are hence prevented from exposing the sad condition of the neighbourhood in which they dwell.

It does not follow, however, that, because facts have not been publicly stated, there are few evils which demand removal. We know of several villages, within fifty miles of the metropolis, where there scarcely exists either a drain in the streets or in connection with any of the cottages. Many of them are entirely destitute of privies, and so accustomed are the poor inhabitants to obey the calls of nature in a very primitive way, that the act is significantly called "going to ground." In these villages there are scarcely any pumps, so that the inhabitants are compelled to drink the turbid water of stagnated pools; and in the summer, when the drought is severe, their supplies are nearly cut off. As a natural consequence, typhus prevails more or less throughout the year, and we have known nearly every member of a large family cut off by this terrible disease.

Mr. Wm. Lee, in an article on "Typhus Fever in Rural Districts," in a recent number of "The Journal of Public Health," adverts to the wretched condition of Pitmoor, a *pleasant* suburban village, about one mile and a half north of the parish church of Sheffield. He says:—

"The hill upon which it is situated rises between two and three hundred feet in less than a mile. The site has a south-eastern aspect, and the greater portion of the houses are occupied by gentry, professional men, and master manufacturers. One part only of the village—a space not exceeding one hundred yards square—is occupied by cottage-houses. Several rows of these, delightfully situated, with neat gardens in front, and a surface inclination of not less than one in twenty, were infested during the past year, to a frightful extent, with typhus fever. I was informed that some of the cases were of the most virulent kind, and such as to baffle the skill of the numerous medical men in attendance. Convinced that there must be a local cause of the disease, I visited the place, and the following is the brief result as to one of the rows, called Clayton-terrace:—James Wright, tenant: wife ill; two privies and soil-pits, in a foul condition, are erected against the house, and drain through the walls. Charles Ramsden, tenant: child ill. William Howe, little boy ill. William Hill, tenant: two daughters, one of them eighteen years of age, and a son, all died. The next door: Linley, tenant; three children ill. Adjoining house: Wragg, tenant; wife ill; a privy drains its contents into the cellar. Next house but one: Sayles, tenant; wife ill. It is worthy of remark, that the men who spent the greater portion of their time away from the noxious influences of the place, and in a purer atmosphere, escaped.

"The solid refuse of these houses is received by a cesspool, which is close to the houses, and in a most filthy condition. The liquid is actually poured into a trough, with a hole in the bottom, fixed under the spout of a pump, from whence the inhabitants draw their only supply of water. There are pigsties within three yards of the doors and windows of some of these houses, and almost close to the wall. The water had precisely the same taste and odour as that in Lydgate-lane. Was anything done to remedy the evil? Have the medical men come forward voluntarily, and certified this, or other similar places, as nuisances prejudicial to the public health? I am sorry to be compelled to say, that they have not only left this undone, but that some have shrugged their shoulders, and endeavoured, in as few words as possible, to cast a doubt upon facts elicited by one not belonging to the profession."

If the condition of country districts is to be thoroughly made known to the public, the Health of Towns Association must take the matter in their hands, and send individuals expressly for the purpose of investigation. Medical men would then be found ready to communicate that information which at present they are disposed not to make *voluntarily*.

THE NEW ASSOCIATION FOR THE SUPPRESSION OF QUACKERY.

It is now some months ago since the Apothecaries' Society discovered that all quacks and unlawful practitioners of medicine could be punished without the expensive process of an action at law, and immediately that this fact was ascertained the profession was informed of it. It was natural to expect that a corporate body, armed with power which, rightly executed, would be productive of good, would vigorously employ it for the end desired. The Apothecaries' Company, however, has declared itself incapable of protecting the profession, in consequence of being possessed only of empty coffers. The result is, that ignorant persons continue to exercise their iniquitous vocation by tampering with the lives of the people without fear of coming under the influence of the strong arm of the law.

A number of medical gentlemen in the metropolis, finding that they had little to expect from the society, have resolved to take the matter in their own hands—to subscribe a fund to meet all expenses that may be incurred, and then to use every means to discover and prosecute quackish pretenders to medical knowledge. A meeting has been already convened, at which Dr. Gavin of Hackney presided; resolutions have been passed, and money collected: so that there is now every prospect of efficient machinery being brought into action.

It is greatly to the credit of the medical gentlemen who have put themselves to the trouble and expense of originating such a society, and we

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have no doubt that their labours will be appreciated by the whole profession. As the Apothecaries' Society exhibited a strange reluctance to engage in a work which it was their duty to perform, it was absolutely necessary that some means should be devised to prevent the penal clauses of the act of 1815 becoming a dead letter. The isolated efforts of individuals could never accomplish much, and very few would be disposed to incur the odium associated with the office of informer, or could give the time necessary to procure evidence sufficiently plain to ensure the conviction of an offender.

In many parts of the country, as well as in this metropolis, there are persons practising medicine without the shadow of a qualification; and, though this is known by the medical gentlemen upon whose domain they poach, no efforts have been made to put them down, for the reasons we have already stated. The society just formed is, therefore, what the profession needed; and we sincerely hope that all members will come forward to its support. The expense incurred by individuals is trifling, the responsibility nothing, and the society is pledged to regulate its proceedings according to the state of its funds.

The assistance which the Apothecaries' Company will render, through its legal adviser, will considerably promote the objects of the association, while it will be the means of saving much expense, which would otherwise of necessity be incurred. An institution of this kind has been long wanting, and we hope that, now one is started, it will not languish for want of funds.

PHYSICIANS AND QUACK MEDICINES.

The injunction applied for by Sir James Clark, to restrain Mr. Freeman from making use of his name recommendatory of *pills* (an account of which we subjoin), is a matter of some interest in these days of quack advertisements. It has often been a matter of serious complaint, and for which no legal redress could ever be obtained, that written answers which have been obtained by charlatans from physicians and surgeons, relative to their different medicinal preparations, have been made use of in daily advertisements much in the same way as Free Hospital operations. The decision in this case against the anti-quackery physician ought to be a warning to regular practitioners not to lend their names to medicine-venders and chemists, and above all to withdraw their aid from everything bearing the appearance of a professional sanction of such practices.

"CLARK v. FREEMAN.—RIGHTS OF PHYSICIANS.—Mr. Turner (with whom was Mr. Wickens) moved in this case, on behalf of the plaintiff, Sir James Clark, Bart., physician in ordinary to the Queen, to restrain the defendant, Richard Freeman, a chemist, living at No. 5, Clayton-place, Kennington-road, from selling or offering for sale some pills, of which he was the manufacturer, in such manner as to represent them to be the pills of the plaintiff, and from holding himself out to be the agent of the plaintiff for the sale of the pills. It appeared that the defendant manufactured the pills in question for the cure of consumption and other pulmonary complaints, and, to puff them off, he published advertisements and circulated handbills so worded as to lead the public to suppose they were the pills of Sir James Clark, who enjoys a great reputation in pulmonary disorders, having written some treatises on the subject. One of the advertisements was headed—'By her Majesty's permission, Sir J. Clark's Consumptive Pills, a certain cure for consumption, and an unfailing remedy for coughs, asthma, difficulty of breathing, &c.;' and then followed a dissertation on pulmonary disorders and a eulogy of the pills, and at the foot, 'Agent, Mr. R. Freeman, Kennington-road, and to be had of any medicine-vender. 2s. 9d.' There was also a representation of the royal arms after the words 'her Majesty's permission.' Another advertisement was in the form of an apology to the medical profession for selling a patent medicine. The defendant had spelt the name of Clarke with an *e* at the end; but the intention appeared to be to induce the public to believe that the pills were manufactured and sold under the direction of Sir James Clark. In support of the application, an affidavit of the plaintiff was read, in which he stated that he had caused the pills to be analyzed, and had found that they contained antimony and mercury, which were very injurious in many cases of consumption. He had received several letters from parties in the country, some asking him how they were to use the pills, and others complaining of the ill consequences which had followed from the use of them. It was contended, that as it was not only a gross imposition on the public to represent the pills as the plaintiff's, but as it would also tend to injure the reputation and practice of the plaintiff, the court ought to interfere by injunction. The defendant had no right to use the plaintiff's name to enhance the value of his own wares, or to hold himself out as the agent of the plaintiff in the sale of a quack medicine. The conduct of the defendant gave the plaintiff a right of action against him, and where damages were recoverable in an action at law the court would grant an injunction. In the case of 'Lord Byron v. Johnston' (2 Meriv., 29), Lord Eldon granted an injunction to restrain the defendant from selling some poems as Lord Byron's which were sworn not to be his; and so here the court ought to restrain the defendant from selling pills as the plaintiff's which were not his.—The Master of the Rolls thought he had not jurisdiction to interfere. There could not, he said, be any injury to property so as to induce the court to interfere. An attempt to impute to Sir James Clark that he had anything to do with a quack medicine was, perhaps, defamatory to his character, but he could not imagine that a person in his position could be seriously injured by it. It was one of the taxes imposed on eminent men to have their names thus made use of. No doubt also an attempt to connect Sir James Clark with a quack medicine was a great injury to the public, who were induced to adopt remedies which were highly prejudicial. But this was in the nature of a public offence; and Lord Byron's case differed from the present in this respect, that Lord Byron was in the habit of writing and publishing poems, but Sir James Clark was not in the habit of making and selling pills. He could not, therefore, be said to be injured in his trade or business by what was done by the defendant. He must refuse the application."

MR. GUTHRIE'S LECTURES ON WOUNDS OF THE CHEST.

MR. GUTHRIE, under the great calamity which has befallen him, in the loss of his son, the Rev. Lowry Guthrie, does not deliver these lectures himself. They are read by Mr. Warwick, the lecturer upon anatomy and physiology to the hospital, with such comments as he thinks necessary, and which, from his long connection with Mr. Guthrie, he is well able to make.

We have the hope that Mr. Guthrie will be able to resume their delivery before the course be completed.

We need scarcely add that we feel both pride and pleasure in being the medium of placing before the professional public the matured science, on so interesting a subject, of one who has seen, and under the most favourable circumstances, more surgical practice than any other member of our profession in Europe.

ASIATIC CHOLERA.

WE have been favoured by the Director-General of the Army Medical Department with the most important contribution that has of late years been made, to our knowledge, of this mysterious scourge. The manuscript consists of a very elaborate report, furnished to the Army Medical Board by one of its most distinguished officers, Surgeon Thom, of her Majesty's 86th Regiment. It is entitled "A Medical Report on the Causes, Character, and Treatment of Spasmodic Cholera, as it occurred in the 86th Regiment at Kurrachee, in June, 1846." We shall publish the first part of the monograph in our next number.

CONGLETON UNION.

At a special meeting of the guardians of the Congleton Union, held at the board-room at Arclid, on Friday, the 21st ult, it was resolved that the allowances to the surgeons of the union be increased as follows:—

To the surgeon of the Congleton district, from	£60 to £ 90	0
To the surgeon of the Sanbach district, from	75 to 112	10
To the surgeon of the Holmes Chapel district, from ..	35 to 52	10
To the surgeon of the union poorhouse, from	30 to 50	0

The resolutions were carried unanimously at a very large meeting of guardians.

CONFERENCE OF POOR-LAW MEDICAL OFFICERS WITH THE COLLEGE OF PHYSICIANS.

The college authorities having fixed Tuesday, Jan. 25, for receiving a deputation from the committee appointed by the Convention of Poor-law Medical Officers, the following gentlemen, Dr. Hodgkin, Mr. Vallance, Mr. Peter Martin, Dr. Barnett, Mr. Lord, and Mr. Healey (the honorary secretary), attended at the College of Physicians at three o'clock, and were received by Dr. Paris (the president), Drs. Clendinning, Todd, Sutherland, and Hawkins (the registrar).

Dr. Hodgkin, in introducing the deputation, remarked generally on the objects sought by the Convention, and the manner, temperate but firm, in which the committee desired to carry out those objects. He dwelt on the claims which the profession had, when aggrieved, to the assistance of its seniors, and especially of a corporation exercising privately by its members, as well as publicly by its legal position, so much influence as the College of Physicians. The deputation, in seeking that conference, had it in view to secure the advantage of the college's assistance; and he expressed his hope and confidence, as one of its licentiates, that that assistance would be cheerfully accorded.

The President here remarked that the college did feel a warm interest in the subject which the committee was submitting to it, and that, in the parliamentary committee under Lord Ashley, he had himself given evidence in favour of a great improvement.

The Deputation then submitted in detail to the president and censors the different grievances under which poor-law medical officers suffered throughout the country, particularly adverting to the inequality of payment, its inadequacy, the short tenure of many poor-law medical appointments, the system adopted in giving orders, and the mischief which from all these causes constantly arose to the pauper sick. They referred to instances in illustration, and, adverting to the influence the position of the college necessarily gave it with the Government, urged on it, that by representations to the Government on the one hand, and by joining, on the other (through their president), a deputation to Sir George Grey and Mr. Buller, to be sent from the committee, that they would exercise all their power to mitigate an evil alike

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mischievous and dishonouring to the whole profession.

The President and Censors promised to give their best consideration to the statements of the deputation, expressed the warm interest they felt in removing the grievances they complained of, and added an assurance that the college would be glad on every occasion to communicate with the committee, and to second as far as possible their exertions.

The Deputation having expressed their acknowledgments to the marked courtesy and cordiality with which they had been received, and their representations heard, then retired.

SOCIETY OF APOTHECARIES.

A full deputation—consisting of Mr. Martin, Reigate; Mr. Bottomley, Croydon; Mr. Vallance, Dr. Barnett, Mr. Liddle, Mr. Lord, Mr. Lobb; Mr. Boulger, Bletchingley; Mr. Mitchell; and the Honorary Secretary—had the honour of waiting on the Society of Apothecaries on Friday, the 28th ult.

In answer to representations, similar to those made to the College of Physicians, the society, through the master, Mr. Bean, and several of the wardens, emphatically declared their warm interest in the exertions of the committee; and stated that the grievances of poor-law medical officers particularly appealed to the society's best exertions for their removal, and that they would be most happy to exercise their utmost influence in seconding the exertions of the committee, the more so as those exertions tended to the well-being and protection of thousands of gentlemen possessing the licence of the society, as well as of the large body of the sick poor.

The deputation then retired, warmly impressed by the cordial and decided manner in which the society pledged its concurrence and support.

THE COLLEGE OF PHYSICIANS AND THEIR IMPURITIES.

[To the Editor of the Medical Times.]

SIR,—At a moment like the present, when the supporters of the College of Physicians are so actively, though, I fear, so impotently, employed in bringing before the public evidence of their superior acquirements, dignities, and, we may add, virtues, it is most unfortunate that there should be amongst them individual members who have lately made, and are still making, an open display, to use the mildest term, of their discreditable conduct. The correspondence of Drs. Williams and Watson, the singular attempt to impose upon the Royal Society by Dr. Robert Lee, and the astounding fact that several members of that immaculate body are at this very time practising homœopathy, hydropathy, *et hoc genus omne*, ought surely to call forth the interference of the ruling powers; and we do think that their president, Dr. Paris, is bound, if he has the least respect or good will towards the college, to bring forward before that body, for their mature deliberation and censure, the conduct of those individuals who have so grossly trespassed on the usages of society. If what has been publicly said of Dr. Robert Lee's conduct, and if the report of the Physiological Committee of the Royal Society, published in the *Medical Times*, be correct—of which, I suppose, there is no one who entertains a doubt—I do protest that the college to which he belongs, as well as the Royal Society, should diligently scrutinize the whole matter, and act with all due circumspection, but with that decision which so monstrous a case seems unquestionably to demand.

Pall-mall East, Feb. 2. CENSOR.

DR. ROBERT LEE AND HIS NERVES OF THE HEART.

[To the Editor of the Medical Times.]

SIR,—Lest your readers should be further misled by the reiteration of erroneous statements relating to the publication of the report on Dr. Robert Lee's paper, "On the Nerves of the Heart," which appeared in your journal, and in the *Medical Gazette* of the 14th ult., I beg the favour of your inserting the following correction of those statements.

The report in question, the authenticity of which Dr. Lee affects to doubt, is not, as he has all along assumed, the report of the Committee of Physiology. It was drawn up by two of its members, to whom, as being highly qualified for the task by their anatomical knowledge, the committee referred the paper for examination, and for a report on its merits; and, upon the report being read to them, the committee decided that they did not recommend the paper to be printed. No one, certainly, had a right to make that document public without the consent of its authors; but, most assuredly, those authors had themselves the fullest right to sanction its publication in whatever manner they might deem best for the interests of science and the establishment of truth. In the present instance they have very properly exercised that right, and are entitled to the thanks of every impartial inquirer for communicating a document which, exposing as it does the "extravagant misrepresentation" (to use their own words) contained in Dr. Lee's paper, furnishes so complete a justification of the unfavourable verdict pronounced upon it by the committee. The referees had no need to ask permission of the committee to give to the world the results of their own investigation. They alone, not the committee, are responsible for its contents; and for the accuracy of the published copy, with the exception of a few unimportant typographical errors, they are ready to vouch. Authorized by them, I was the channel through which that copy was communicated to the journals; but the original manuscript has never been out of my hands from the time it was placed in my custody. Dr. Lee maintains that the reports of referees should ever be regarded as secret and confidential, and, as far as I have been concerned, they have always been so kept. By whom, then, has this important secret of the referees been divulged?—I answer, by the referees themselves. By whom has their confidence been betrayed?—By themselves alone. By whom is this publicity complained of?—By those only who, while they are loud in their reprobation of secrecy, are yet glad of the shelter it affords them, and are averse to let in the light of truth.

In his letter to you, Dr. Lee seems to approve of the *abuse* which the *Lancet* has fulminated against the council for having "actually blackballed" the last paper sent by Dr. Marshall Hall to the Royal Society; and asks why I do not publish the report on the strength of which the committee was led to refuse it a place in "The Philosophical Transactions"? I can only say, in answer, that I am quite ready to do so whenever I receive the sanction of the authors of that report—a report, I may add, which was the result of a most careful and laborious investigation by no less than four competent referees, and which gives a most full and elaborate explanation of the grounds on which they considered the publication of the paper in the "Transactions" as not advisable.

I am, Sir, your obedient,

P. M. ROGET.

18, Upper Bedford-place, Feb. 1.

DR. R. LEE AND THE ROYAL SOCIETY.

[To the Editor of the Medical Times.]

SIR,—As my name has been brought before the medical profession, charged with either carelessness or wilful neglect, I feel it due to my character, as an artist of long standing and experience, and also to the Royal College of Surgeons, and those medical gentlemen by whom I have been employed, to state that I do not, and never did, consider myself responsible for the accuracy of any anatomical drawing made by me under the eye and directions of the anatomist; and I have never yet made one, whether at home or elsewhere, that has not been almost daily examined and corrected by the anatomist himself.

As to the various structures pointed out for delineation, it would ill become me to pretend to more knowledge than my employers, and presume to dispute or doubt their existence. I am an artist, not an anatomist.

By inserting the above, you will oblige, Sir, your obedient servant, EDGAR WEST.

Feb. 3.

FATAL CASE FROM CHLOROFORM.

By T. N. MEGGISON, M.D.

I much regret that the melancholy duty of communicating what I believe to be the first fatal case of the administration of chloroform should devolve upon me; but I consider I should not be doing my duty to the profession generally did I not make public the case. The patient, a fine-grown girl of fifteen, had been suffering for some time past from onychia of the left great toe, the matrix appearing involved extensively. After consulting with Mr. Lloyd, my assistant, we deemed it absolutely necessary that the nail and matrix should be completely removed. I ought to say that, about a year previously, the nail of the other great toe had been removed at the Newcastle Infirmary; but, the matrix having been left, the disease had spread, and induced necrosis of the distal phalanges of the toe, rendering amputation necessary, the propriety of which we merely urged, thinking to do it after the operation had been performed on the other foot.

During the previous operation she was under the influence of ether, and said she felt no pain nor inconvenience from it except a severe headache afterwards, and great uneasiness during the inhalation, from irritation of the fauces. We assured her she would feel none of that irritation from the use of chloroform, and that in the cases in which I had used it the headache, if any, had been transient. The whole of the day previous to the operation she had been fretting much, and apparently dreading it, crying continually, and wishing she were dead rather than submit to it. In this state we found her on Friday last, at noon, when we went to perform the operation. We endeavoured to console her, and calm her fears, assuring her she would not feel it, and urging her to be more collected, but in vain. She sat down in the chair sobbing. I poured a teaspoonful of chloroform on a handkerchief, and, on applying it, she drew her breath twice, and pulled my hand down. I asked her to put her hands on her knees, which she did, and breathed quietly for about half a minute, when, no stertorous breathing or change of appearance supervening, I lifted her hand, and, finding it rigid, requested Mr. Lloyd to remove the nail and matrix. This was dexterously done with one sweep, at the termination of which she kicked out, and I, thinking the chloroform not sufficiently potent, was proceeding to apply more to the handkerchief, when her lips, which had been previously of a good colour, became suddenly blanched, and she spluttered slightly at the mouth as one in epilepsy. I threw down the handkerchief, and gave her cold water immediately, followed by brandy. This, however, had not the least effect, not the slightest attempt at rallying being made, and in a minute more she ceased to breathe. A vein in the arm was opened, as also the jugular, but no blood would flow. The whole process of inhalation, operation, bleeding, and death, could not, I should say, have occupied two minutes.

I will send you the result of the coroner's inquiry when finished.

Whickham, Jan. 30.

THE DEATH AFTER CHLOROFORM.

In reference to the case given elsewhere by Mr. Meggison, an inquest was held on Tuesday, the principal facts charged being the following:—

Sir John Fife: I am a surgeon in Newcastle-upon-Tyne. I made a *post-mortem* examination of the body of Hannah Greener, the deceased, along with Dr. Glover, about three o'clock in the afternoon of Saturday last. The body was that of a well-grown girl, of the age indicated. The legs were rather thin; calves not sufficiently fleshy; breasts tolerably well developed, and, on the whole, thin. She was not devoid of fat, as appeared on proceeding to open the body. The body was perfectly free from spots or stains of any kind, except from the marks of phlebotomy, to which she had been subjected, and some slight livid stains about the neck. The toes showed the nature of the operations which had been performed. There was simply the ordinary degree of rigidity. The mouth was a little open. The eyes presented no appearance of congestion. On opening the chest the lungs were not collapsed.

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One or two slight adhesions were encountered on separating them from the walls of the chest. The external appearance of both lungs, over the whole surface, but especially in the inferior portions, was that of organs in a very high state of congestion. They were mottled with patches of a deep purple, bluish, or scarlet hue. They were everywhere crepitant. Along the outer and anterior border of both lungs, particularly of the upper lobe of the left lung, were several emphysematous bubbles of small size. On cutting into the pulmonary tissue, it was found free from tubercles, unless some hard bodies about the roots of the bronchia, enlarged and partially indurated glands, could be so called. The pulmonary tissue was filled with bloody froth, which was also found in the interior of the bronchia mixed with mucus. There was no appearance of hepatization. On examining the larynx and trachea, the epiglottis was found reddened at the summit, of a vermilion hue. The mucous membrane of the larynx was redder than natural, mottled with vascular patches. The sinuses of the larynx contained a good deal of dark mucus. The œsophagus was healthy. The stomach was distended with food. Digestion had been going on at the time of death. The liver, kidneys, and spleen were more congested than usual. The heart contained dark fluid blood in both its cavities; very little in the left; its structure, and that of the great vessels near it, was healthy. The brain, externally and internally, was more congested than usual, and the ventricles contained rather more than the usual quantity of serum. In my opinion the cause of death was the congestion of the lungs, and that congestion I ascribe to the inhalation of chloroform. Of the power of chloroform to occasion such congestion no doubt can be entertained after the experiments of Mr. Wakley and Dr. Glover on animals. There does not seem to have been anything in the previous condition of the young woman to have prevented the surgeon from having recourse to chloroform as a means of allaying pain, in one of the most painful operations of surgery. Such is my opinion of the effect of chloroform in lessening human suffering, and the small degree of danger attending its application in the cases that I have seen, that if I were myself required to undergo an operation I would have no hesitation whatever in taking it. I have been using chloroform three or four times a week ever since its efficacy in relieving pain was published, and I have never seen bad effects from it. In one instance, that of a woman who had to submit to the removal of a tumour, weighing about three pounds, and distributed over a surface about a foot square, Dr. Glover and I administered about eight times the quantity of chloroform that was used in the case of the deceased. She recovered quickly, and was not worse after the operation than might have been expected from it formidable character. I have used it frequently in amputation, lithotomy, and a great many severe surgical operations, and never knew any bad consequence arise from it. I attribute the fatal effect of the chloroform in the present instance to peculiarity in the constitution of the young woman. I am doubtful whether it arose from the state of the lungs, or the peculiar susceptibility of the nervous system. No effect could arise in the present instance from the ether she took on the 26th of October in the infirmary. I have no hesitation in affirming that the fatal issue of this case might have occurred in the hands of the most prudent and skilful surgeon that ever lived. It sometimes happens that a person will die from the shock of the operation, within a very few minutes after, and with nothing to show the cause—merely from the shock it gives the system. Those cases are rare. I think in such cases the same individuals would be influenced in a similar way with chloroform. The same susceptibility of nerve that would render the shock fatal would render the chloroform fatal. No human foresight, no human knowledge, no degree of science could have forewarned any man against the use of chloroform in this case. I have refused to apply it in some cases where the operation could be done in a moment, and was not attended with severe pain; but in every painful case I use it, and, unless it produced insensibility, I would go on repeating it to double the quantity used in this case, and more, if it were necessary. A case occurred lately in the infirmary where a great deal of blood flowed during the operation, which was a very tedious one; and chloroform was repeated during the operation without any bad result afterwards.

By a Juror: The immediate cause of death in the case of the deceased was congestion of the lungs. Congestion is the state of a body gorged with blood, like a bloodshot eye; it is sometimes gorged to such an extent as to burst the smaller vessels and escape in dots or drops. I may state that chloroform was used lately in the case of a child ten months old, when an operation, attended with no loss of blood, was performed, and no bad result followed.

Robert Mortimer Glover: I am a surgeon, but practise as a physician, and was formerly lecturer at the Medical School in Newcastle-upon-Tyne. I have heard the evidence of Sir John Fife, and fully agree with it. Having heard the evidence of Mr. Meggison, and the persons who were present when the operation was performed under which the deceased died, I am of opinion that the after-treatment to restore life was proper, under the circumstances, and in accordance with the views of the highest medical writers. I think chloroform is safer in larger operations, where there is great loss of blood, than in smaller operations. I have examined the chloroform, and find it pure. I consider chloroform more dangerous than ether; and that has been my opinion from the first.

The coroner then addressed the jury, briefly explaining the law of the case.

The jury then retired, and, after a few minutes' absence, returned with the following verdict:—"We are unanimously of opinion that the deceased, Hannah Greener, died from congestion of the lungs, from the effect of chloroform; and that no blame can be attached to Mr. Meggison, surgeon, or to his assistant, Mr. Lloyd."

PROBABLE ANTIQUITY OF CHLOROFORM.

At the Medico-Botanical Society, on Thursday se'nnight, Mr. Huttmann stated his reasons for believing that the extraordinary properties of chloroform, viz., the production of insensibility, and the creation of dreams, were known in very remote times, but used most probably for magical purposes only. He first drew attention to the words formica and murmex, the Latin and Greek names of the ant, the insect which yields the formic acid. These words, together with morphe, the Greek word for form, he stated to have a common origin, and to have reference to the property of creating dreams, or immaterial forms. They also gave the name of Morpheus to the God of Dreams, and furnished the root of numerous words having reference to those things which produce sleep and dreams, as well as to the various phenomena connected therewith, and even to death itself, viz., Mors, which the ancients personified as the Brother of Sleep. Admitting these points, the speaker said they contained ample proof that in giving the names formica and murmex to the ant, the ancients selected that distinguishing property which the insect possessed of inducing dreams or forms (morphai). Mr. Huttmann thought there was ample proof to warrant the conclusion that it was applied externally in the form of an ointment. He read several extracts from "Baptista Porta's Natural Magic," "Lorenti's History of the Inquisition," "Reginald Scott's Discovery of Witchcraft," and "Sir Walter Scott's Letters on Demonology," to show an identity between it and the far-famed witches' ointment which had the reputation of possessing, in an eminent degree, the two leading properties of chloroform above referred to. To be present at their "Sabbath" the witches were compelled to anoint the palms of their hands and the soles of their feet. Their midnight rambles, armed with spades, and under the influence of their favourite Diana, *i. e.*, moonlight, may have had reference to the time and means best suited for securing the ants. The sensation of flying, which is admitted by nearly all who dream under the influence of chloroform, has its parallel in the aërial travels of the witches, and the "pricking of the thumbs" may be a waking sensation incident to the external application of the ointment.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Continued from page 302.)

Opposition to the Bill.—I am not aware that any person approaching my station in the profession has any interest in the matter. The opposition of myself and of others approaching our position in the profession, as far as I know the opinions of the council of the College of Surgeons profess petitioning against the bill, rests upon public grounds exclusively, and with reference to the injury to the profession generally, which the passing of such a bill as that now on the table of the House would produce. I cannot say that I have conversed with all the leading men upon the subject, but I have conversed with many who hold the same opinion. I do not know whether Mr. Guthrie objects to the bill or not, nor do I know that he is in favour of the bill. All those, in point of fact, with whom I have conversed, including the whole body of the council of the College of Surgeons, irrespective of any personal interest whatever in the matter, are opposed to the bill. I am not aware that the petition of the president and vice-presidents of the Royal College of Surgeons expresses a favourable opinion as to any parts of the bill; there are some parts of it of which I have a favourable opinion, for instance, the getting rid of the apothecaries' apprenticeship; and I think registration a good thing. I have stated that I have attended at the bedside of patients in the hospital of which I was the senior surgeon, with my pupils, and that much information has been conveyed in conversation from me to them, and in reply to questions from them to me; and I was asked on my former examination whether, if the law which now gives to the governors of Guy's Hospital an absolute discretion of admitting or rejecting parties to attend the bedside of patients were altered, and the governors were compelled to admit persons who were strangers, such a course would, in my opinion, be beneficial. I do not think that the compulsory attendance of young men listening to me and asking questions of me at the bedside of a poor patient labouring under any critical disease would be tolerated in the state of feeling in England, whether that patient were in a hospital or in a private cottage. I do not think that this sort of examination is worth anything except where there is a feeling of good will and kindness between the teacher and the pupils, and they converse familiarly with each other. I would reject with great repugnance the possibility of a law which should justify the intrusion of a young pupil at the bedside of a patient, there to hear an examination into the state of the patient's disease, if it were compulsory. I do not know who wrote the petition against the bill. I do not think I was present when the petition was read. I was not consulted about it. It was left to the president and vice-presidents, Mr. Lawrence, Mr. Travers, and Mr. Stanley. The petition which has been presented to the House of Commons, and has been by the House of Commons referred to this committee, is not described as the petition of the whole body of the College of Surgeons, but it is, in fact, the petition of the president and vice-presidents. As to the substance of the petition the council was consulted, but it was, in fact, the petition of the president and vice-presidents, adopted by the

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council at a meeting at which I was not present. But if I had not been consulted it would not have been irregular, inasmuch as it did not purport to express my opinion. But subsequently to its presentation it had met with my approbation and the approbation of the council.

(To be continued.)

GOSSIP OF THE WEEK.

NAVAL APPOINTMENTS.—To the Devastation, George Clarke, assistant-surgeon, confirmed; to the Medea, William Crawford, assistant-surgeon, confirmed; to the Ringdove, John E. Hamilton, assistant-surgeon, confirmed; to to the San Josef, Robert Irvine, acting assistant-surgeon; to the Star, Evan Evans, surgeon; to the Victory, John Murphy, acting assistant-surgeon.—Surgeon: Andrew Miller, M.D., of the Trafalgar, to the Hibernia, vice Macdonald.—Assistant-Surgeons: Thomas S. Wells, doing duty with the Locust, to the Hibernia; Charles F. Williams, to the Locust.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, Jan. 27, 1848:—Henry Christmas Walton, Liverpool; John James, St. Just, Penrith, Cornwall; Thomas Wise, Malton, Yorkshire; George Reynolds Schofield, Leeds; James Rice; George Fry, Mayfield, Sussex.

ROYAL COLLEGE OF PHYSICIANS.—Gentlemen admitted members on the 28th ultimo:—J. Jordan, N. Marsh, H. Armstrong, R. Gorst, P. Y. Gowlland, J. T. Jackson, H. Dermott, T. J. Sayer, and A. Goodchild.

UNIVERSITY OF GLASGOW.—Dr. Jeffray, professor of anatomy in this university, died on Friday last. He has held the chair since 1790, and was the only professor or officer connected with the college whose appointment was made last century. The patronage is in the Crown, and it is said that the appointment will be conferred on Dr. Allan Thomson, professor of the institutes of medicine in the university of Edinburgh, and son of the late Professor John Thomson.

CITY OF LONDON LYING-IN HOSPITAL.—The annual meeting of the governors of this institution was held on Wednesday last, Mr. H. Jackson, vice-president, in the chair. The report, which spoke favourably of the healthy condition of the inmates, showed that an increase of admissions during the past year of nearly twenty per cent. as compared with the previous year had taken place, and that the applications for admissions were increasing—twenty-eight women had been admitted in one day. The mortality had been less than 1½ per cent. The report also stated that a legacy of £100 had been left by Mr. J. Finnie, that a donation of twenty guineas had been received from Mr. H. Jackson, £5 from Miss Salt, and £5 from Miss E. Salt. Mr. A. W. Roberts was elected treasurer, in the room of Mr. J. Capel, deceased; after which three new trustees, the committee, and officers were elected, and the business of the court was closed.

FRENCH MEDICAL REFORM.—The commission charged with the examination of the draught of the bill "On the Practice of Medicine and Pharmacy" is composed as follows:—M. Richard des Brus, M. Pouillet, M. Mottet, M. le Vicomte de Falloux, M. de Peyramont, M. Champanhet, M. Lestiboudois, M. Malgaigne, M. Quenault.

M. Groz, a member of the Municipal Council of Strasburgh, has left by will, to the hospitals of this place, a portion of his immense fortune. The legacy is supposed to amount to 150,000 francs.

MEASURES AGAINST THE CHOLERA.—The French Minister of Commerce has appointed a special commission, composed of physicians, to give their advice upon questions relating to the public health and to devise means against the invasion of the cholera. M. Orfila is the president.

The Faculty of Philosophy of the University of Berlin has voted unanimously in favour of the admission of Jews to the chairs of the university. The Faculty of Medicine has proposed Dr. Remak, a Hebrew, as a professor.

The number of medical students in the schools of the United States is as follows:—University of Pennsylvania, 411; University of Transylvania, 205; Louisville, 354; Medical College at Memphis, 55; Medical College of Ohio, 170; Medical College of Willoughby, 101; Medical College of Castleton, 131.

The Emperor of Russia has transmitted the grand gold medal, instituted by himself for learned foreigners, to Dr. Syne-Pirondi, of Marseilles, in testimony of his approbation of the doctor's work on the plague.

PRESENT TO PROFESSOR AGASSIZ.—The students of the New York College of Physicians, before whom the professor has been delivering a course of scientific lectures, have presented him with a silver box, which contained 250 dollars in half eagles, to which was added a free-passage ticket to Charleston, where the professor was engaged to deliver a new series of lectures.

DEATH FROM THE BITE OF A RATTLESNAKE.—Dr. A. F. Wainewright, of 41, Crosby-street, New York, has recently died from the bite of a rattlesnake. The snake was sent him by a friend in Mobile, Alabama. It was a large animal, about five feet in length, having twelve rattles; it was contained in a box with spars over the top. The doctor was on his way home from the ship with the present, but stopped at the Broadway-house to show the curiosity. The company present seemed to enjoy the sight of teasing and irritating the snake, while the reptile kept whizzing its rattle at a furious rate. The box was opened; and now there being a fair field the reptile kept coiling and rearing itself in fierce defiance of its enemies: this display lasted for some time, when Dr. Wainewright touched it a few inches below the head, expecting that it could not bend its body sufficiently to bite. In a moment it snapped, and inflicted a wound on the first joint of the middle finger of the right hand. This occurred at half-past six o'clock p.m., on Thursday. Dr. Smith was hereupon immediately called upon, and visited the patient. He made a superficial excision of the part and also cauterized it with nitrate of sulphur. He also applied a ligature immediately above the wrist. The hand commenced to swell immediately after the occurrence of the accident. The deceased was then removed to his residence by a few friends, and Drs. Whittaker, Caldwell, Pest, Parker, and Campbell were called in, and application of turpentine to the wound was ordered on their arrival, as also the internal administration of diffusible stimulants. Although the disease progressed rapidly in its course to the forearm and arm, no constitutional symptoms seem to have made their appearance until it reached what the faculty technically term the "axilla," or armpit, when immediately the pulse began to flag; and notwithstanding the continued application of stimulants by the mouth, and also in other forms, the pulse never rallied until about twelve o'clock p.m., when death put a period to his existence. Nothing could equal the assiduity and attention paid to the patient by the abovenamed medical men, who remained with him throughout, from the moment they were called in. They all, however, frankly acknowledged that they had never seen a similar case before. Two medical students from Georgia were also present, having seen similar cases, and gave valuable aid. Dr. Wainewright was a physician of eminent standing, of high professional reputation in medical, literary, and scientific acquirements, having been well known and universally respected among his professional brethren and friends. He had been ten years a resident of New York, and studied under Dr. Whittaker. He was forty years of age. He was formerly a captain in the 50th Regiment of Foot in the British service. The body has been embalmed.

INJECTIONS, ASTRINGENT: solution of one to four grains or more of the sulphate of iron, zinc, or copper, of the crystallized acetate of lead, of alum, potash, or nitrate of silver, &c., to the ounce of simple distilled rose, plantain, or melilot water, or else from one to two drachms of the extract of rhatany, catechu, myrrh, aloes, gum-kino, &c., to the same quantity of liquid, to which is sometimes added four, five, or ten drops of Sydenham's laudanum. Used in acute and chronic leucorrhœa gonorrhœas. Eau de Cologne, diluted with water, a mixture of wine and honey, oxycrate, sea-water, iced water, the decoction of the angustura, may also be used as injections into the canal of the urethra, in cases of gonorrhœa, when the inflammatory syptoms have been previously combatted by local or general bleeding. *** These injections should be made weak at first: their strength may be gradually increased. They should be practised four or five times a day, and continued for at least a week; when the discharge has ceased they should be left off gradually. They are practised by means of a small syringe, the canula of which should completely close the orifice of the urethra, and for that purpose some thread or cotton should be wound round it. The injection ought not to pass much beyond the glans, and, to prevent its doing so, the under surface of the penis should be compressed with the fingers of the unemployed hand when the injection is used. When it is requisite that it should pass further in, a pledget of lint is to be applied in the perinæum in man, and under the arch of the pubes in women, to prevent its passing into the bladder. When sufficient liquid has been thrown in not to distend the canal painfully, the syringe is withdrawn, and the orifice of the urethra closed by the fingers, so as to keep the injection in contact with the sides of the canal for four or five minutes, after which it may be permitted to escape. The strength of the injections is to be increased or diminished according to the degree of pain caused by them. As injections do not always pass to the requisite distance in women, for want of proper attention, or of the requisite instrument, it is advisable to follow Ricord's plan, to use the discutient, astringent, or other lotions, by soaking pledgets of lint or pieces of sponge in them and passing them into the part. Baths, moderate diet, and continence are necessary while the injections are used.

DEATH OF DR. JOSEPH BELL.—It is with sincere regret that we have to announce the death of one of the most distinguished medical practitioners in Edinburgh, Dr. Joseph Bell. The melancholy event took place in his house in George-street, on the evening of Saturday last, about nine o'clock. The cause was, we believe, typhus fever, caught in the discharge of his professional duties. He was the youngest son of the late Dr. Benjamin Bell, the Liston of his day, one of the most celebrated operators and practical surgeons that Scotland can boast of. His mother was a daughter of Professor Hamilton, who filled with distinction the Chair of Divinity in the University of Edinburgh; so that, by parentage, as well as by professional celebrity and personal labours, the name of Dr. Bell has long been intimately connected with the medical renown of the Scottish metropolis.

OBITUARY.—Died on the 6th ult., at Kendal, in Westmortland, where he had practiced fifty-six years, Mr. Edmund Tatham, surgeon, in the 80th year of his age.—Jan. 17, at Baldock, Herts, after a short illness, Robert Innerarity, Esq., surgeon. He had operated on a patient on the 9th ult., and some of the matter affected a small scratch in the finger, which caused the disease gradually to spread over his whole body: he expired after a few days' suffering, universally respected, and leaving a widow and five children to mourn the loss of an affectionate husband and kind and indulgent parent. A feeling of deep sympathy is felt by the whole town and neighbourhood on the melancholy event.—Jan. 20th, at Raeburn-place, Edinburgh, Dr. J. W. Reid, surgeon, R.N.—On the 31st ult., at Sevenoaks, Kent, after a long illness, James Gellatly, Esq., M.D., in the 52nd year of his age, for more than twenty years a highly respected practitioner in the borough of Southwark.

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NOTICE.

SUBSCRIBERS IN ARREAR are respectfully requested, in conformity with the terms of their subscriptions, at once to forward their remittances to the OFFICE.

TO SUBSCRIBERS.

☞ The subscription for the stamped edition of the *Medical Times* is 15s. for the half-year, and £1. 6s. for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfrae.

NOTICE.

THE Editor having arranged to PRESENT A HANDSOME COLOURED CHART OF CHEMICAL ANALYSIS to each annual Subscriber entered on the roll of the Office, it is respectfully notified that all gentlemen forwarding their annual subscription within this month will be entitled to a copy. The Chart is a beautiful Lithographic Engraving, 41 inches wide by 28 deep, and contains a compendious Synopsis of the Science of Chemical Analysis, giving substances, tests, and results (with colours), adding, by very skilful arrangements, a complete *resumé* of the tests by the blowpipe, with their results, a scientific description of the agents employed, and an able development of such doctrines and facts of Chemical Analyses as are not dependent for their elucidation on colour alone.

This Chart will be ready for distribution on the 15th or 22nd of February, and will be forwarded free of expense, to each annual subscriber.

It must be added that, this being a gift, no applications can be entertained from gentlemen not on the roll of the Office.

MORTALITY TABLE.

For the Week ending Saturday, Jan. 29, 1848.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1457	1107
SPECIFIED CAUSES...	1453	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	340	184
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	48	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	143	138
Diseases of the Lungs, and of the other Organs of Respiration	353	225
Diseases of the Heart and Blood-vessels.....	46	39
Diseases of the Stomach, Liver, and other organs of Digestion	63	62
Diseases of the Kidneys, &c.	19	9
Childbirth, Diseases of the Uterus, &c	14	13
Rheumatism, Diseases of the Bones, Joints, &c. ...	9	8
Diseases of the Skin, Cellular Tissue, &c.	2	1
Old Age	72	79
Violence, Privation, Cold, and Intemperance.....	51	31

TO CORRESPONDENTS.

"Agricola."—The term is applied in botany to a leaf which has portions of its upper surface raised in the form of blisters, with corresponding concavities on its inferior surface: the word is also employed as the specific name of certain plants, the leaves of which have the peculiarity above mentioned.

"Studens."—The hospital contains about five hundred beds, and we believe the surgical staff is efficient. The regulations of the Apothecaries' Company, in reference to the registration of certificates on lectures and hospital practice, may be obtained on application to the secretary.

"Mr. Balme."—We are obliged for the paper on "Meteorology," but at present we cannot spare room for its insertion.

"Medicus."—Prussic acid, prepared as Scheele directs, is not of uniform strength. Prepared according to Vauquelin's method, it retains a portion of sulphuretted hydrogen. The preparation of the Pharmacopœia contains about two per cent. of real acid.

"Anti-quack."—The tergiversations of the journal alluded to are well known. We shall be glad to receive the promised information.

"A Constant Subscriber, Abergavenny."—The circumstance alluded to is probably referrible to the ineffectual application of the poison in the cases that escape. This conjecture is rendered the more probable by the acknowledged fact of bites upon the face and hands being always more dangerous than when the tooth had previously passed through articles of dress.

"P. B., Hoxton." — 1. Write to the secretary at the college. 2. Vesalius was born at Brussels in 1514. He was one of the first who exposed the errors of Galen in anatomy. Having opened the body of a Spanish nobleman, whose heart was said to have palpitated when the thorax was cut into, Vesalius was brought before the Inquisition, and was only saved by undertaking a pilgrimage to the Holy Land. On his return he was wrecked on the island of Zante, where he perished of hunger in the fiftieth year of his age. 3. In Conduit-street.

"A. B. C."—If five years have been passed by the pupil in medical studies under a general practitioner, without the existence of indentures, we should think that the matter could be so arranged as to meet the requirements of the Hall.

"Nicator, Hartlepool."—Question 1. Yes.—2. There are no regular charges.—3. No. Indentures of apprenticeship are requisite. In reference to the Poor-law Union, if the medical practitioner obtained his appointment prior to the election to which our correspondent refers, he is considered as entitled to a preference; not otherwise.

"Dr. Davenport."—The paper has been received, and a private communication has been sent by this day's post.

"A Real Reformer."—The Medical Registration Bill is just where it was. There is no prospect whatever of its passing into a law.

"A Union Surgeon."—Our correspondent need exercise no fears in reference to the parties mentioned. We only wait permission to publish the document.

"Mr. Edmonson."—We cannot promise an early insertion for the papers, but, as soon as we have fulfilled our engagement to contributors whose communications have not yet appeared, we will endeavour to find room for our correspondent's article on "Gangrena Senilis."

"Galen."—The term embraces all those concretions which resemble stones generated in the stomach and bowels. It is derived from two Greek words—*enteron*, an intestine; and *lithos*, a stone.

"An Army Surgeon."—The letter arrived too late for insertion in the present number.

"Magister."—The Company is compelled to demand proofs of a candidate for the licence having served an apprenticeship of five years. This part of the act of 1815 is, however, evaded in a variety of ways.

"Dr. Searle, Bath."—The request shall be attended to.

"M. R. C. S. E."—We cannot give an opinion on the probability of obtaining an engagement in the city alluded to. Either of the newspapers published there would answer the desired end.

"Mr. Wm. Pritchard, East Retford, Notts."—We will attend to the request made.

"Homo."—Address the different secretaries of the universities, and the required information will be immediately given.

"Calvities" writes us as follows, in reference to Mr. Syme's appointment:—"Your contemporary has gone on the wrong scent, in attributing the recent appointment at University College Hospital to Scottish influence. The true explanation of the matter is justly due to you—you who have taken a more calm and reasonable view of the matter. 1. Independently of the desire of the council to obtain the services of the best man, it must be borne in mind that, with the exception of one or two of the physicians and the professor of surgery, the other gentlemen connected with the place have no other sources of emolument beyond the fees of the pupils, and that it is essential to their existence to connect 'attractive names' with the institution. 2. Mr. Syme is a very distinguished and a suitable man, whose inclination, on private as well as professional grounds, has led him this way, and his services were gladly accepted. 3. In all probability the chair of surgery will, before long, lose its present ornament (Professor Cooper), and it was necessary that Mr. Liston's successor should, like himself, have no intention of placing himself in the road to this appointment of one of the directors of the college, who has long had an eye to it for himself."

"Mr. A. W. Close, Manchester."—A private communication has been sent.

"Mr. Chas. Horace Wall, King's-road, Chelsea."—Communication received

"Dr. Octavian Royle, Ipswich," writes us as follows, in reference to chloroform:—"Before we can unanimously hail the discovery with delight, we must know, see, and hear considerably more of its effects. No one can, I presume, for one moment hesitate to acknowledge, at least those who have witnessed its exhibition, that it possesses qualities pre-eminently superior to those produced by the inhalation of the vapour of ether, although, as to the injurious consequences likely to accrue from its use upon a system depressed by disease, or where any constitutional idiosyncrasy exists to head or heart affection, is a question still to be solved. Time alone can authorize medical men in speaking positively as to its real merits. Public opinion in such a discovery is greatly influenced, and very justly so, according to the generally received views entertained by the profession at large. If admissible in midwifery, a few questions suggest themselves to me, viz.—1st. When, and in what stage, ought it to be given? 2nd. Will uterine contraction go on as vigorously under its use as it would without it? 3rd. Might it not produce serious injury to the brain of the unborn fœtus through the medium of the placental circulation, the mother, of course, being previously sent under its full influence? 4th. How long would it be safe to keep a person in a state of insensibility? These are questions which I must leave to an abler pen to define. In natural labour, expulsion being completed 'viribus naturæ,' its exhibition, I conclude, would be contraindicated.

"Dubitans."—There is no danger from the Company, but there is from private informers.

We have received from a subscriber not on our roll, an application for our Chart of Chemical Analysis, with certain arguments which he considers support his request. Our answer is short, and will, we hope, be held satisfactory. 1. Our arrangements already made preclude our giving charts to the extent involved by our correspondent's request. 2. The investigation of claims made through booksellers, or by private letters, would involve a labour, expense, and annoyance we do not feel called upon to incur, and this the more, inasmuch as all our exertions in so invidious a task would certainly end most unsatisfactorily. 3. Though feeling a proper amount of obligation for all support, whether for short or long periods, through the trade or direct to the office—an obligation we endeavour to repay our friends by making our journal worthy its cost—we may yet be well excused for wishing to make some special, though certainly needless, acknowledgment to those subscribers whose names have been under our own eye enrolled in our own books through successive years as steady and cordial supporters. A compliment to them must be much misconceived if treated as an affront to our other friends.

"J. B." will excuse our omission of his letter. Its object is more than answered by the letters of Dr. Roget and Mr. West.

"S. B. C."—We are much obliged by the tender of full details of the case of Clark v. Freeman. We have given as full a notice of it as its importance demands, or the pressure of more essential matters will allow.

"Mr. H. B."—We have secured, through another channel, the information we wished.

"M. D., Clifton," should have favoured us with his name. His strictures on the recent advertisements represent a very general opinion.

"F.R.S." is quite right in his opinion that the report of the arbitrators in Dr. Marshall Hall's case should be published. The conduct of that physician and his friends has made it public property.

"Medicus."—We have no space for the note. The undisguised spleen of unprincipled rivalry is of small authority in the profession. The paper promised would be useful.

"M.D.'s" suggestion of a series of medico-legal cases is not without value.

Several communications and papers have reached us which have not yet had consideration.

"A Scotch Surgeon."—It would be only to repeat our opinions to publish this note. To make the choice of Mr. Syme a matter of accusation scientifically, is just to show how reckless, as well as clumsy, some are in inventing and using matter of reproach and calumny. If a better man had been passed over something might be said; but to reproach a public council of a new medical school with not adopting formally a system of nepotism and local intrigue in choosing a surgical teacher is too absurd—so absurd, indeed, as to show that the insignificant pother made on it is merely the affair of that well-known newspaper correspondent "A Father of a Family."

Letters and communications have also been received from Agricola; Studens; Mr. Balme; Medicus; Anti-quack; A Constant Subscriber, Abergavenny; P. B., Hoxton; A. B. C.; Nicator, Hartlepool; Dr. Davenport; A Real Reformer; A Union Surgeon; Mr. Edmonson; Galen; An Army Surgeon; Magister; Dr. Searle, Bath; M. R. C. S. E.; Mr. Wm. Pritchard, East Retford, Notts; Homo; Calvities; Mr. A. W. Close, Manchester; Mr. Chas. Horace Wall, King's-road, Chelsea; Dr. Octavius Royle, Ipswich; Dubitans; J. B.; S. B. C.; Mr. H. B. M. D., Clifton; F. R. S.; Medicus; A Scotch Surgeon; Mr. Brown, Ballinglass; Mr. Fulsham, Earl Shilton; Dr. Murney, Monaghan; Mr. Westcott, Montague-street; Mr. Allott, Lowstoyland; Mr. Nunn, Wexford; Dr. Copeman, Norwich; Mr. Muirenny, Donegal; Mr. Houghton, Lytham; Dr. Lane, Newtownlimavady; Mr. Allaner, Killington; Mr. Hely, Ravenstone; Mr. Hoffmann, Margate; Mr. Alcock, New Ross; Mr. Berry, Mallow; Mr. Clarke, Lynton; Mr. Price, Pont-y-Pryddy; Mr. Binks, Pendleton; Mr. Watson, Burnopfield; Mr. Ryder, Canterbury; Mr. Armstrong, Haworth; Mr. Sankey, Maidstone; Mr. Square, Doncaster; Mr. Teale, Leeds; Mr. Aston, Fleetwood; Mr. Ryan, Tipperary; Dr. Hayes, Killinchy; Mr. Cooke, Clay; Mr. Rose; Dr. Fletcher, Gloucester; Mr. Gilland, Leeds; Mr. Daniell, Newport Pagnell; Dr. Wing, Southampton; Mr. Tatham, Burton-in-Lonsdale; Dr. Foley, Kilrush; Mr. O'Brien, Johnstown; Mr. Burman, Wath; Mr. Jenkins, Carmarthen; Mr. Bayley, Odiham; Mr. Perry, Marden; Mr. Pinden, Horsforth; Dr. Meredith, Cork; Mr. Crosby, Ouseborne; Mr. Tidbould, Chumleigh; Mr. Watson, Oundle; Mr. Butcher, Ware; Mr. Mayhew, Stradbroke; Mr. Green, Rackford; Mr. Connor, Battersea; Mr. Irving, Lamberhurst; Mr. Gray, Houghton-le-Spring; Mr. Terney, Leyburn; Mr. Whittaker, Wirksworth; Dr. Horniblow, Leamington; Mr. Johnston, Cockermouth; Mr. Whiting, Lynn; Mr. Gibbons, Congleton; Mr. Edwards, Ingatestone; Mr. Amyot, Diss; &c.

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ORIGINAL LECTURES.

LECTURES ON SOME OF THE MORE IMPORTANT POINTS IN SURGERY.

By G. J. GUTHRIE, Esq., F.R.S.,
Surgeon to the Royal Westminster Ophthalmic Hospital.
Read by Mr. HANCOCK, Surgeon to the Charing-cross Hospital, and Lecturer on Anatomy and Physiology at the Royal Westminster Ophthalmic Hospital.

Lecture II.

ON WOUNDS AND INJURIES OF THE CHEST.

Inflammation of the pleura; symptoms; effusion of fluid; its danger in wounds of the chest; signs indicated by auscultation and percussion; inflammation of the lungs; symptoms; the three stages of pneumonia; signs of pneumonia discoverable by auscultation; formation of false membranes in pleuritis; compression of the lung in cases of pleuritic effusion.

It is not my intention, in the following observations, to give a history of, or even the whole of, the symptoms and the consequences of inflammation of the pleura and the lungs. It would be out of place. I am merely desirous of drawing attention to such of the principal facts as it may be necessary to consider when these inflammations and their consequences are caused by wounds or external injuries.

Acute idiopathic inflammation of the pleura usually commences by rigors, preceded, perhaps, by some signs of general uneasiness, which soon become those of great febrile excitement. Pain is early felt in the side in the course of the sixth, seventh, and eighth ribs, on the point corresponding generally to the seat of the inflammation. It is usually sharp and darting, is called a stitch, occupies rather a small space (the *point de coté* of the French), and is always increased by drawing a full breath or by coughing. The breathing is short, from the disinclination to fill the chest, which increases the pain; and it is hurried, and sometimes takes place as if by jerks, from the necessity for its repetition, in consequence of the smallness of the quantity of air admitted at each attempt. When the attack is very severe, the patient tries to breathe with the healthy side only, and the lower ribs of the affected side are moved but slightly, and with evident caution. If the inflammation has been caused by extreme violence, pain will be also felt at that part in particular. When acute inflammation supervenes on a part already in a morbid state, it will necessarily be felt at the spot affected, although it is not always present, unless sought for by a cough, or by a deep inspiration.

When inflammation has affected the pleura covering the diaphragm, and especially when caused by external violence, the pain will be felt lower down, so as to lead to the suspicion that it is also abdominal. When jaundice supervenes, as it has been known to do, it must have been an accidental circumstance, or from extension of disease through the substance of the diaphragm, as is occasionally seen in wounds implicating the chest, the diaphragm, and the liver, and complicating in these instances the original disease or injury.

A cough is not a constant accompaniment of the first stage of disease; and, when present, it is usually dry, slight, infrequent, and does not attract attention, unless accompanied by a thin mucous expectoration, indicating the presence of a disposition for bronchitis, if frothy; for pneumonia, if reddish. The patient usually lies on his back whilst the pain is severe, and has a great indisposition to turn fully on the affected side, although he inclines towards it. At a later period, when effusion has taken place, he turns on this side to relieve the difficulty of breathing, caused by the pressure of the fluid on the sound lung through the bulging of the mediastinum; but the manner of lying, or *decubitus*, as it is called, is of little importance, and should be subservient to the feelings of the patient, who is sometimes only comfortable when raised to nearly an erect position.

When the complaint is not subdued at an early period, an effusion of serous fluid takes place, more or less in quantity, according to circumstances. In from twenty-four to forty-eight hours the whole cavity of the side affected has been known to be filled, giving rise to symptoms dependent on the degree to which the effusion has taken place; and this is the evil which in injuries penetrating the cavity of the chest is most to be feared. When the external wound has been closed, or is so partially closed as not to allow its escape, it is commonly the immediate cause of the death of the patient. Its formation and early evacuation are, therefore, the most important points to be attended to in these particular cases.

The respiratory murmur, discoverable by the ear or by the stethoscope, becomes fainter as soon as the pain prevents the ordinary distention of the affected side of the chest, and diminishes the quantity of air which usually penetrates the lung in any given time. As soon as a thin layer of fluid commences to be thrown out between the pleuræ, this murmur becomes fainter, and as soon as it is complete this sound ceases. If the patient can bear percussion, the side affected yields a dull dead sound, instead of the ordinary clear sonorous one of health. The position of the patient, when erect, by causing the fluid to descend, may allow of the respiratory murmur being heard at the upper part of the chest, although it may only be perceived in front, but not behind, when he lies on his back, until the cavity is filled, when this sound altogether ceases. At the spot in the back corresponding to the root of the lung, or at any other point at which previously formed adhesion may retain the lung against the wall of the chest, some respiratory murmur may yet be distinguished, until this part of the lung shall also have yielded to the general compression, so as to be temporarily impervious, or have become solidified, under the continuance and the extension of disease. Whilst this is taking place in the affected side, the other lung is called upon to make up the work of aërification of the blood; it labours harder, its functions become more energetic, and that side of the chest is more distended; the respirations become quicker, fuller, and louder, and the vesicular murmur is said to resemble that of a child—to be puerile.

When the lung begins to be compressed by the circumambient fluid, and the respiratory murmur ceases, a peculiar modification of the respiration through the large bronchial tubes may be heard, constituting bronchial respiration. It occurs in pneumonia, in pulmonary apoplexy, and in tubercular disease when the lung is solidified. When the voice is heard through the stethoscope in these complaints, the peculiar sound emitted is called bronchophony.

In pleuritic effusion, the voice, when carefully examined, sometimes obtains another character, of comparatively little importance, called ægophony, a sound which may be easily confounded with pectoriloquy and bronchophony, of the latter of which it is a modification more often alluded to than observed. Laennec, who first described it, says, page 70, tome 1, "Traité de l'Auscultation":—"Simple ægophony consists in a peculiar resonance of the voice, which accompanies or follows the articulation of words. It appears to be sharper than natural, more acute and somewhat silvery, vibrating as it were on the surface of the lung, more as an echo of the voice than as the voice itself. It rarely enters the tube of the stethoscope, less frequently traverses it completely. It has, besides, another peculiar character, which is constant, and from which I have taken its name. It is a trembling, bleating, or shaking sound, like that of a goat, the tone of which animal it greatly resembles. When it occurs near a large bronchial tube, as in the root of the lungs, a more or less marked bronchophony is often superadded," thus giving rise to various modifications of voice and tone, which Laennec considers to resemble more particularly that made use of by the Polichinello, the Punch of the streets. This sound may pervade the whole side; it is usually, however, most distinct near the inferior angle of the scapula, the patient being erect. It only exists where the effused fluid is small in quantity; is never a dangerous symptom; and its return, after it has been present and has disappeared, is a sign that a part of the effused fluid has been removed. It is a sign principally of value in distinguishing between pleuritis and pleuro-pneumonia and pure pneumonia, in which latter it is not heard, as no fluid is thrown out on the pleura.

In pneumonia, or inflammation of the substance of the lung, as distinct from any implication of the pleura, which, however, most frequently obtains after blows on, and in cases of penetrating wounds of, the chest, the symptoms differ. The ordinary febrile symptoms are similar to those of pleurisy, only more intense, and usually precede for a day or two the local symptoms of difficult respiration, pain, and cough. The dyspnœa varies in different people. In some, it is only a slight embarrassment of breathing, which is partly removed by accelerating the

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number of the respirations, which are augmented from twenty to thirty, forty, and upwards; in children, to sixty and seventy, marking a great degree of distress and of extent of inflammation, from which, when they are so frequent, persons rarely recover. The patient can scarcely speak or lie down, and is obliged to be supported in that which he finds to be the least uneasy position. Pain is not always present; its absence, however, cannot be relied upon as indicating any particular modification of disease, and Andral affirms that it is only absent when the substance of the lung is affected, and not the pleura. That pain is not a necessary concomitant of pneumonia is admitted, but that it is usually present, and with great intensity, in many cases, cannot be doubted. When present, it is usually an early symptom, deeply seated below the sternum, under the breast, extending to the scapula. When in the sides, it is more acute and fixed, and is probably conjoined with the pain of pleurisy.

The pulse is quick and sharp, occasionally full and hard, at the commencement of this complaint in young and healthy persons, although it is sometimes small and weak from the beginning, where there is little general power; but this rarely occurs in cases of injury, and is not to be relied upon in them, in opposition to other symptoms.

The cough is usually dry in the commencement of idiopathic pneumonia, rarely recurring by paroxysms, and is without any particular indication; it is soon, however, accompanied with a slight mucous expectoration, which, after some twenty-four or forty-eight hours, begins to assume certain and peculiar characters of the utmost importance, as indicating the existence and the different stages of the disease. We owe our information on this point principally to Andral, and it is deserving of the greatest attention. "On the second or third day the expectoration becomes bloody. Each sputum, spit, or crachat is composed of mucus intimately combined with blood; that is, not simple streaks or striæ of blood as in catarrh, nor is it pure blood as in hemoptysis. Each sputum is either of a yellow, or rust, or even red colour, according to the quantity of blood intimately mixed with the mucus. These sputa become at the same time tenacious and viscous, adhering so intimately together as to form a homogeneous transparent whole, readily gliding, however, from the basin in which they are held, on an ordinarily sufficient inclination being given to it. At this period or stage of the disease the sputa adhere strongly to each other, but the mass is not sufficiently viscid to stick to the sides of the vessel. When no further change takes place in the sputa, the inflammation rarely passes beyond the first stage of obstruction or engorgement, or swelling, or the *engouement* of Laennec, Andral, and the French writers. When they attain to a more viscous state, and adhere to the inside of the vessel in which they have been received, the progress of the inflammation to the second stage, or that of hepatization, may be feared. In almost every case where the viscidity of the expectorated matter increases, respiration becomes null or bronchial. Percussion of the chest yields a duller sound than before, and the inflammation has attained its highest degree. The expectoration, after being some time stationary, changes its character, if the complaint is to terminate by resolution, or by death, or to pass into a chronic state; when, by resolution, the redness and viscidity gradually diminish, and at last disappear. If the rust colour and the viscidity should return, there has been a relapse, and the reappearance of the other symptoms prove it. When the inflammation is of the most serious nature, and about to terminate fatally, the expectoration diminishes, and at last ceases. In some it only diminishes because it cannot be discharged, and accumulates in the trachea, the larynx, and the bronchi, until the patient is destroyed. In some rare cases the matter secreted is spit up nearly to the last, and in others, still rarer, the approach of death in the last stage is characterised by a brown expectoration which cannot be mistaken for either of the others which preceded it. If the pneumonia passes into the chronic state, the expectoration becomes yellowish, or somewhat greenish, and at last is purely catarrhal."

Delirium is not an uncommon symptom, when the inflammation of the lung is intense in persons of powerful constitutions, particularly during the exacerbation of fever in the night. It yields with the others, when relief is obtained. When, however, it comes on at a later period of the complaint, or when the accompanying fever is not purely inflammatory, and in persons weakened by exhaustion and privation, it is usually a fatal symptom, if at all continued.

When mild it often occurs after repeated and efficient bleedings, which have subdued but not entirely removed the disease, and yields to opiates and gentle stimulants, which also remove the pain, which sometimes, however, remains in a milder degree than before,

The ear or stethoscope, applied to the surface of the chest opposite the affected part, which must thus be sought for, if not indicated by pain, discovers, soon after the commencement of the disease, that the natural murmur cannot be distinctly heard, having been at first partly obscured, and after a time entirely superseded, by a peculiar noise, called by Laennec rhonchus, or *râle crepitants*, the crepitating or crepitous rattle or rhonchus of English authors. In its purest state it has been likened, by Dr. Williams, to the sound of a lock of hair rubbed close to the ear; by Andral, to that made by rumpling a fine piece of parchment; by Laennec, to that which is produced by what under ordinary circumstances is called the crepitation of salt, when scattered in small quantities on red-hot coals. The dry sound of the burning salt is accompanied by a modification, dependent on the humidity of the part from which it proceeds; which is presumed to depend on the inflammation being confined to the air-vesicles of the lung, partly filled with mucus, whilst the small terminations of the bronchi which communicate with them are also compressed by the swelling of the surrounding parts, and thus, by preventing perfect freedom of inspiration, give rise to this abnormal or peculiar murmur. This crepitating rhonchus is heard at first in a small part of the lung, generally at the lower, rather than at the upper, part; and marks the first stage of the disease. The opinion of Laennec as to the rhonchus crepitans being an accompaniment of the very first stages of inflammation of the lung has been doubted, as it has whether effusion accompanies the first stage of inflammation of the pleura; and, in all probability, some change must precede in order to give rise to it. As it is, however, the first sign which can be readily perceived, it may be admitted in practice as denoting the first stage. Dr. Stokes, however, believes that it is preceded by a puerile respiration, which is an earlier sign of the commencement of the complaint. This crepitation is not of long continuance; the vesicular murmur is either restored, or the crepitating rhonchus ceases to be heard, in consequence of the second stage having commenced, or that of hepatization, in which the small air-vesicles are no longer pervious; and the sound of the breathing, which is now heard, is that of the air more forcibly driven into the larger bronchial tubes causing bronchial respiration, which is described as altogether different, being no longer vesicular, or crepitating, but whiffing, like that caused by blowing forcibly through a quill, or as if little gusts of air were blown in, or blown out. The voice betrays to the ear of the auscultator another sign; it descends into the pervious bronchi, and, being conveyed to the ear through the solid lung, gives rise to that peculiarity of voice which is called bronchophony, a correct knowledge of which, as of many other points of auscultation, can only be acquired by repeated observation.

When the inflammation of the lung is confined to a small and deeply seated spot, auscultation may not reveal the evil until its extent has been increased; or it may possibly be overlooked, through the sound part of the lung becoming more active, and giving forth, in consequence, a stronger and more puerile breathing, which misleads the listener.

When the vesicular murmur cannot be heard, when the rhonchus or crepitating râle or sound, is not present, and bronchial respiration and bronchophony can only be distinguished, the case is one of great anxiety and danger. The second stage of hepatization is passing into the third or purulent infiltration, of which auscultation shows no further signs, although the matter secreted may be expectorated, in proof of what has taken place. Pus thus formed, it was first declared, and it is still steadily maintained by some of the best French writers, is not deposited in the form of abscess, but infiltrated in the parenchymatous substance of the lung, finding its way into the larger bronchial tubes, or is poured out from some parts of their secreting surface.

Upon this point, M. Laveran comments in the 57th volume of the "Mémoires de Chirurgie Militaire" for 1844, having related a case in which an abscess had formed of the size of a nut, a second in which it was the size of a small egg, and a third in which there were several small abscesses communicating with each other. Admitting that these abscesses rarely occur, he attributes that rarity to the parenchymatous tissue of the lung being fibrous rather than cellular. M. Grisolles, in his able work on Pneumonia, has collected twenty-two cases of abscess in the substance of the lungs, rendering its occurrence no longer a disputable point. The accuracy of the statement to the contrary I have always been disposed to doubt, from my own repeated dissections having proved the reverse.

The effects of inflammation of the pleura are well marked: the first is to diminish, if not to annul, the secretion of the exhalation, or halitus, by which it is lubricated; so that its surfaces can no longer glide without noise upon each other. The patient is often made aware of the difference by some uneasy internal sensation; the auscultator, by a rubbing or creaking sound emitted as the inflamed pleuræ, no longer smooth and polished, rub against each other, and become covered by a thick, effused matter, although not actually separated by a liquid. It is a sound which cannot exist after separation has taken place by the intervention of a fluid, or after adhesions have formed; it is, therefore, an early and transitory sign, is frequently interrupted, and returns, as if by jerks, three or four times, repeated in succession. The pleura, when examined, after being attacked by inflammation, shows, at first, but little sign of derangement on its serous surface. It quickly, however, exhibits numberless small vessels, now carrying red blood, which are principally seated in the sub-serous cellular tissue, reddening the membrane more deeply in one part than another. These soon begin to take on a new action, leading to the deposition of coagulable lymph or fibrine, which adheres to the inflamed surfaces. These depositions soon assume the determinate form of very thin layers, constituting what are called false membranes; whilst a serous or sero-purulent effusion takes place, even to filling the cavity of the chest, and which may or may not be ultimately absorbed. When coagulable lymph is first deposited, and about to form a false membrane, it is soft, of a greyish-white colour, possessing no appearances of organization. Red points are, after a time, perceived in it, which soon become red lines or streaks, on the surface. This organization of the lymph does not depend on the period which has elapsed from the commencement of the complaint. It is seen in the first day of the disease in some cases, it is altogether absent in others, and depends much on the state and habit of the patient. The lymph is sometimes deposited in small drops or spots; in others, in patches of a greater or less size, varying according to the extent of the inflammation which has produced them. When a false membrane is once fully formed, it becomes itself a secreting surface, and may go on augmenting its thickness to so great a degree as materially to

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diminish the cavity of the chest. I have seen the pleura with a solid deposit of this kind much more than an inch in thickness. In general, it is found in distinct layers, super-imposed one on the other; and, whatever may be their thickness, they commonly admit of being separated from each other. The false membranes thus formed, resembling cellular tissue in their properties, may ultimately become cartilaginous, and even bony. When adhesions form between the pleuræ, they become lengthened with time; and although they impede the motion of the lung at first, and may give rise to some uneasy sensations, they gradually become elongated, and give no further inconvenience. The fluid thrown out, independent of the lymph, is serous; it rapidly follows the establishment of inflammatory action, and is often mingled with flocculi of lymph, which are seen floating in it, and is, therefore, more or less turbid, resembling whey. It is often nearly colourless and transparent, particularly after inflammation; when the consequence of injury, it is often tinged with blood, forced out from the capillary vessels of the pleura, or of the false membrane, if not caused by the deposition of the fluid coagulated in the first instance after the receipt of the injury.

The quantity of fluid thus thrown out varies from an ounce to several pints; it gravitates according to the position of the patient, unless, when from old adhesions between the pleuræ, it is confined to particular parts. When the cavity of the pleura is free, and the fluid is in quantity, it compresses the lung, and diminishes its size by pressing or squeezing the air out of it; it is thus pressed towards the vertebral column, and so greatly diminished in size and augmented in density as to be useless for the purposes of respiration. Whilst the lung is undergoing this compression to its utmost, the mediastinum also yields, and bulges into the opposite side of the chest, carrying the heart more or less with it; so that, when the left side of the thorax is thus affected, the heart is seen and heard to beat on the right. The diaphragm now yields, in turn, more on the left than on the right side, from the obstacle to its descent afforded by the liver. The intercostal muscles and ribs resist for a considerable length of time, for weeks, the internal pressure; they at last, however, yield: the ribs may even turn a little outwards, whilst the interspaces in thin persons are said to fill out, so as to render that side of the chest nearly smooth; the size of that side, when measured, being larger than the other, in some instances by even two inches, but this rarely occurs unless the fluid within is purulent, and the disease of long standing.

It has been supposed that the deposition of albumen, fibrine, or lymph, in layers, in the formation of false membranes, is consequent on the effusion of the colourless fluid from which they are deposited; and that the change of the transparent to a whey-like fluid is a precursor of this deposition. But this is certainly not always the case, these false membranes being generally found where death occurs early from wounds of the chest, even when the fluid is transparent, or discoloured red; although it may be admitted that, when the pseudo-membranes are thick or in several layers, the serous fluid is thicker, more turbid, and similar to purulent matter.

That a deposition may take place from a fluid, the product of inflammation, which is scarcely turbid, must be admitted; and that from this a deposition of whitish matter may take place, lying upon, but not actually in the first instance adhering to, the part in which it is deposited, cannot be doubted. I have seen this take place in inflammation of the internal layer of the cornea, and of the anterior covering of the iris, after the operation for extracting a cataract; I have also seen it covering the capsule of the lens after injury, rendering it quite white; yet on the evacuation of the aqueous humour by an opening in the cornea, made in one instance for the purpose of removing a small piece of copper cap—the original cause of irritation, the white deposit was discharged with the aqueous humour, and the capsule of the lens left perfectly transparent.

After a time, and particularly in wounds of the chest, the effused fluid becomes purulent, the lung, compressed to a small flattened surface, adheres to the spine by what was its root, if no other adventitious attachments have retained it in a different position, and the pleura has become a thick, yellowish-white, irregular, honeycombed-like sort of covering for it, as well as completely lining the chest. The serous as well as the purulent effusion are both free from any unpleasant odour, unless a species of gangrene has taken place, when the latter becomes very offensive, and of a greenish-black colour, as well as the substance of the false membranes extending to, and sometimes beneath, the pleura covering the condensed lung, into which openings have been even thus made.

In some cases the surface of the pleura is covered with small tubercles, some as large as a filbert; in others it appears to have a reticular or honeycombed appearance; and in particular cases, large irregularities or excavations may be observed in it when much thickened, being evidently spots of ulceration, which, if they had proceeded, would have ended by allowing passage to the matter outward, until it formed an external abscess implicating, in all probability, one or more of the ribs, and giving rise to an exfoliation which, by being separated internally, might in time be the cause of furthur mischief, if not previously covered by a thin layer of false membrane. When chronic pleurisy succeeds to a more acute attack, or alternate with each other, and particularly after penetrating wounds of the chest, several layers seem to be laid down one upon the other, until the pleura costalis would appear to have attained in some instances to an inch or more in thickness, and somewhat resembles a solid cartilaginous substance. It is never so thick upon the pleura pulmonalis; nevertheless it is quite thick enough in most instances to prevent the lung from again dilating, the substance of it being generally quite permeable to, although so compressed as to be deprived of, air; flattened, drawn upwards towards its root against the mediastinum and spinal column, unless, by some previous adhesion, such course has been prevented, and it adheres, as it has been often known to do, to the side of the chest. As that adhesion may occur in more than one spot, so may the effusions or deposits take place between them, constituting circumscribed sacs. Dr. Roe gives one remarkable instance, in which the fluid contained in the lower part was evacuated by operation, but that in the upper part was only discovered after death, there being between thirty and forty ounces of pus within the general cavity. The lung, instead of being compressed in a healthy state, may have been the subject of previous disease, or tubercles may form in it, or an abscess or spot of gangrene may give rise to a communication between the inside of the lung and the cavity of the chest, into which the air escapes, rendering the case more complicated.

LECTURES ON GENERAL PATHOLOGY,

DELIVERED TO THE

FACULTY OF MEDICINE

DURING THE PRESENT YEAR,

By PROFESSOR ANDRAL.

Reported for the *Medical Times* by D. M'CARTHY, M.D. Paris, &c.

SECOND SERIES. CHAPTER V.—(*continued*).

In diseases of the respiratory organs physical signs are derived from several sources: inspection, in the first place, which shows the presence of tumours, or alterations of shape of the thoracic walls, or fistulæ communicating with the respiratory organs; whether the origin of these fistulous passages be disease of the lung or pleura, or affections of the parietes of the chest, palpation assists us in detecting loss or diminution of the resonance of the thorax during the articulation of sounds, and is often put in requisition for the diagnosis of pulmonary disease. Auscultation and percussion, the elements of which it is not our province to explain, are also powerful assistants to the diagnosis; and succussion finally furnishes us with a sign by which one particular malady may be easily detected. We will now proceed to the appreciation of these various methods in the discrimination of thoracic maladies.

In bronchitis, increased thickness of the mucous membrane of the air-passages, or the accumulation of fluids within their cavity, are the causes of those sounds which auscultation detects, and which are denominated rhonchi. These sounds vary *ad infinitum*—from the smallest crepitus to the loudest bubbling murmur, and from the slightest wheezing to the most hoarse, snoring rhonchus—in consequence of the varieties of thickening of the mucous membrane, of thinness or viscidity of the fluids by which they are occasioned. In capillary bronchitis a crepitus is often heard quite as minute as in pneumonia; and by insensible degrees, in simple bronchial inflammation, changes into the largest bubbling murmur. Sibilous and snoring sounds appear to depend more upon thickening of the bronchial membrane than upon the accumulation of fluid secretion. The humid râles, on the contrary, are produced by the bubbling of air forced through a more or less abundant, and more or less viscid, secretion; when the affected branches are large the bubbles are few and loud; when the smallest bronchial divisions are the seat of the bruit, it acquires a crepitating character. These sounds may be heard during inspiration or expiration. The crepitus of pneumonia has been asserted to exist only in inspiration, and that of capillary bronchitis in expiration also; but the assertion is not correct. Coughs, a deeper respiration, the act of speaking, often change these sounds, and cause them to appear or to cease in the same subject, by occasioning a change in the relative position of the bronchial fluids, and the air which is to traverse them. When acute bronchitis is attended with much oppression, and a tendency to emphysema, sibilous râle, often mixed with a sub-crepitus, is distinctly heard in most parts of the thorax. In chronic bronchitis all these sounds may be detected, particularly the sub-mucous rhonchus, which is generally found on both sides, in the inferior and posterior thoracic regions. When a bronchus is much dilated, a cavernous respiration and pectoriloquy being often present, a tubercular excavation might be supposed to exist if, on percussion of the chest, the resonance was not found to have remained natural.

In pneumonia, percussion, so long as the lung is merely congested, does not furnish much assistance to the diagnosis; but, when hepatization intervenes, dulness is always found. In lobular pneumonia, however, percussion does not show any diminution of resonance, nor in limited forms of central pneumonia. On auscultation, the respiratory murmur is found to be replaced during the first stage by a fine crepitus, which you are well acquainted with; and during the second, when the condensed pulmonary cells admit no more air, a tubular or bronchial respiration is detected. When the lung gradually regains its elasticity and permeability, the crepitus reappears, and is then called crepitus redux—a sound of favourable omen. It sometimes happens that this rhonchus redux is not observed; but souffle persists for several days after the cessation of all functional symptoms, gradually losing its intensity, and finally disappearing altogether, natural respiration taking its place. If an abscess or gangrene of the lung terminate pneumonia, a gurgling murmur is heard; but purulent infiltration of the lung is not to be distinguished by auscultation alone from the second stage of pulmonary inflammation. During congestion of the lung the resonance of the voice is natural; bronchophony is present in the second stage, and, in abscess or gangrene, pectoriloquy. The vibration of the walls of

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the chest, during the emission of voice, is diminished, but not in so marked a manner as in pleuritic affections. These various signs are observed in most cases of pulmonary inflammation, but in lobular and central pneumonia they are absent, and the diagnosis must be derived from other sources.

Emphysema is characterized by increased resonance of the chest, on percussion, and diminution of intensity of the respiratory murmur. These two signs are alone present in emphysematous subjects during the intervals of those paroxysms of asthma with which they are visited, and when these are present, the chest seems filled with all the various rhonchi of bronchitis, chiefly the sibilous and crepitating sounds. When, in consequence of the progress of emphysema, some permanently distended air-cells form a projection above the surface of the lung, a special creaking sound may be detected. In this disease inspection also assists the diagnosis, and points out a modification of the shape of the chest, which becomes more round, and, as it were, bulged, the antero-posterior diameter being increased; above and beneath the clavicles, no depression is met with as in healthy cases, but rather a swelling, which shows the tendency of the lung to expand and occupy more room.

In phthisis, percussion of the chest should never be neglected. Auscultation may leave some doubt in the mind, but percussion removes it. When tubercles are few and isolated, this method furnishes only negative results, but the resonance of the thorax diminishes if their numbers increase. The dulness is still more complete when the morbid secretion softens, and is always present, except in extremely few exceptions, when excavations have formed: it is then produced by the existence of fluid in these caverns, and the infiltrated and condensed conditions of the portions of lung by which they are surrounded. Another sound is in these cases produced by percussion, which Professor Piorry very justly calls hydro-aeric sound, and which had been hitherto denominated "bruit de pot fêlé;" but it is obtained only when, percussion being exercised upon the region of the walls of the chest corresponding to the seat of the pulmonary ulcer, the mouth of the patient remains open. In the very earliest stages of consumption, auscultation often teaches us nothing. But, in proportion as the disease advances, and the tubercular deposit is more abundant, the respiratory murmur decreases, the inspiration becoming shorter, weaker, and more rough, and the expiratory sound more pronounced, longer, and bearing a closer resemblance to souffle. These modifications are chiefly observed in the superior parts of the thorax, and their signification is greater when they occur on the left side, because on the right side the expiration is naturally stronger and more prolonged. When the local damage advances, new physical signs are produced. The resonance on percussion daily decreases; on auscultation, particularly of the superior parts of the chest, a small humid rhonchus is heard, called cavernulous râle, because it takes place in small excavations. This bruit has some analogy with the rhonchus crepitant redux of pneumonia, and with some sounds of bronchitis; but the antecedent history of the case, the seat of the morbid bruit in the summit of the chest, and its persistency, clear up all doubts which might be entertained as to its nature. Sooner or later the small cavities aggregate and form a large excavation, which furnishes, on auscultation, different signs, according to its state of repletion or vacuity. In the first case, a loud bubbling rhonchus is produced whenever air is admitted into the cavern; variable, however, in loudness and intensity, according to the depth of inspiration or the presence of cough; when, on the contrary, the excavation is empty, a loud souffle, called cavernous respiration, is distinctly heard. These two sounds may succeed to each other when the cavities are alternately full and empty. During the first period of phthisis, the tubercular deposit being rare, the resonance of voice is not modified; but when the lung is condensed that resonance increases, and equals bronchophony in strength; pectoriloquy is present when excavations have formed.

Pleurisy, in its incipient stage, before the formation of any effusion, is not marked by any physical sign, except diminution of the respiratory murmur, caused by the pain, which prevents the patient from breathing with freedom. When the effusion forms, dulness on percussion is also noticed, proportioned in extent to the abundance of the morbid secretion, beginning in the posterior and inferior thoracic regions, and hence rising gradually, invading even the front of the chest, and sometimes occupying one entire side. This dulness may vary with the position of the patient, and is always more complete in pleurisy than in pneumonia; indeed, with the exception of some very uncommon cases of cancerous tumours within the chest, absolute dulness exists only in pleurisy. On auscultation, where the effusion is not very abundant, the respiratory murmur is simply weaker on the diseased side; but, in general, tubular respiration is present, and resembles so closely the souffle heard in pulmonary consumption, that it is not possible to distinguish these two sounds from each other. Auscultation of the voice serves, however, to discriminate their true causes; bronchophony being present in one case, and ægophony existing in the other. If the effusion is very considerable, both souffle and ægophony cease to be heard. In pleuritis the voice ceases to cause any vibration in the walls of the chest, a fluid—a bad conductor of sound—being interposed between the lung and the thoracic parietes. The application of the hand on the two sides of the chest will, therefore, in most cases of pleurisy, furnish a sign of much diagnostic value. In some instances of pleuritic inflammation, a crepitus is heard, which some have referred to a complication of bronchitis, but which we attribute to the presence of false membranes. When false membranes only have been secreted, a friction sound may be detected, sometimes so loud as to deserve the name of rasping bruit. This, however, is seldom the case in the acute stage, where the false membranes are soft and semi-fluid; at that period the friction sounds are of a capricious nature, often disappearing suddenly after being very distinct. But when the disease has lasted some time the friction becomes remarkably rough and loud, and may occasionally be heard without immediate application of the ear to the chest, and casually by the patient himself. Palpation may permit this friction to be discerned by the hand; after the cure of pleurisy, some dulness and weakened respiration may remain for ever in the diseased side. M. Christophe, of Strasbourg, calls *egony* a modification of voice which he considers indicative of the presence of false membranes. On the same side with the effusion it not unfrequently happens that below the clavicle the expiration is prolonged and the voice bronchophonous, the lung being condensed by pressure, whilst on the healthy side the respiration is louder than during health (puerile). The conformation of the chest is often changed by abundant thoracic effusions; the diseased side increases in size, the ribs separate, and the intercostal spaces bulge outwards; when the disease cures, the side occasionally falls in, causing remarkable deformity.

We may also find in the pleura, gases, either alone or simultaneously with fluids; hence pneumothorax and hydropneumothorax. In the first case the resonance of the diseased side on percussion is enormously increased; the respiratory murmur is replaced by amphoric souffle; the voice is extremely loud, and attended with amphoric buzzing. When fluid is also secreted in the pleural cavity, dulness replaces a part of the sonorousness already noticed, and a characteristic "metallic tinkling" is heard, caused by bubbles of air bursting through a fluid obstacle in their passage from the smaller bronchi into the pleura. If an idiopathic pneumothorax, not connected with perforation of the lungs, existed, this metallic bruit would not be heard. The chest is very rapidly dilated in this disease; let us also add, that when the chest is suddenly shaken a sound may be heard analogous to that produced by agitating a vase half filled with water. This sound, indicated by Hippocrates, who attributed it to pleurisy, might be heard in one other case only, viz., in a case of hernia of the stomach, or colon, into the chest through the diaphragm; but on auscultation intestinal borborygmi would be detected.

The measurement of pulmonary capacity may also be a source of physical signs. Dr. Hutchinson, who devoted much attention to this interesting subject, asserts that the quantity of air which the chest can inhale varies with the size, weight, age, and habits of life, of each subject. Some general principles are, however, very clearly established by that learned physician's researches. Thus, in consumption, the pulmonary capacity always diminishes. The average of the capacity of the chest, being 224 cubic inches during health, falls in subjects of the same size, weight, age, &c., to 149 cubic inches in consumption. The difference is even greater at an advanced period of the malady: the average being 220; that of consumption descended to 83 cubic inches, and even in *one* case the capacity of the chest was reduced to 34.

ORIGINAL CONTRIBUTIONS.

REPORTS ON THE DISEASES OF FEMALES.

By EDWARD RIGBY, M.D.,

Fellow of the Royal College of Physicians, Senior Physician to the General Lying-in Hospital, Lecturer on Midwifery at St. Bartholomew's Hospital, Examiner on Midwifery to the University of London, &c.

The following case is one of organic sterility, which, from the small os and taper cervix uteri, may be called congenital, but considerably aggravated by the effects of inflammation.

L. C., aged twenty-nine, gaunt, haggard, pale, and, for her age, old looking; married eighteen months; never pregnant.

Oct. 20, 1846. Complains of constant uneasiness of back in the situation of the upper lumbar vertebræ, and also of pain at the lower end of sacrum, increased by the passage of hard fæces, with a feeling of wanting to evacuate the rectum, and yet of inability to do so. When this latter pain is bad, there is also much irritability of the bladder. Tongue dry, rough, and very pale; bowels regular only when she takes steel, which she does pretty constantly.

Before marriage the menses were very irregular, sometimes occurring only once in two, three, or even five months. After marriage they became too frequent and profuse, with coagula; but for the last two or three times they have been tolerably regular, although still with coagula. The last period arrived with much pain; the discharge stopped suddenly, reappeared as suddenly, and with much pain; and this occurred two or three times over. She expects them in two days.

From the description of her symptoms, she appears to have had an attack of inflammation of the cervix uteri and vagina about a year ago.

During the last fortnight she was attacked with severe pain of back and lower part of abdomen, and also of the lower lumbar vertebræ for which leeches and blisters were applied with benefit; she has since been taking nitric acid, in infusion of gentian, and latterly citrate of quinine, and iron.

Examination per Vaginam.—Os externum and vagina very small; from which reason, and from the os uteri being so high up, it is reached with some difficulty; it is situated rather forwards, very small, nearly closed, and somewhat tender. The end of the cervix is so covered with a fringe of fibrinous excrescences, like minute polypi, that it is not easy to detect the os uteri at first. The upper extremity of the vagina is contracted and puckered, as if cicatrised. The uterine

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sound was introduced with much difficulty, and would not pass beyond the os uteri internum. I, therefore, introduced the dilator, and dilated slightly; on closing its blades, the instrument passed immediately into the cavity of the uterus; on introducing the sound, it passed to the extent of nearly three inches, and somewhat to the right; on introducing the speculum, which was done with much difficulty, owing to the contracted state of the os externum and vagina, the above-mentioned little excrescences could be seen. The os uteri was livid, cicatrized, and granular; a slight bloody discharge was flowing from the os uteri. Applic. argenti nitras ori uteri.

℞. Pil. hydrarg., gr. iij.; ferri sulph., gr. ij.; ext. hyoscyami, gr. v. M. ft. pil. ij. o.n.s.

℞. Acidi nitrici dil., m. xv.; liquoris taraxaci, ℥j.; infus. gentianæ co., ℥j. M. ft. haust. ter die sumendus.

22. Catamenia came on without pain or coagula; feels much easier; pain of sacrum relieved; little or no pain in back; bowels regular. Rep. med. Leaves town in a day or two.

Nov. 10. Returned to town a few days ago, and I examined the os uteri with the speculum; it was more healthy. I applied the argenti nit. once more. Yesterday, after a little dilatation, I passed a taper sponge-tent, but to-day I find it has been of no use, having been dislodged by her cough. Dilated again to-day, and introduced a smooth metallic tent; the rough, cicatrized condition of the canal of the cervix was quite perceptible as it passed. Rep. med.

16. The metallic tent has been retained until yesterday, when it came away. The catamenia have come on. Pt.

20. The catamenia appeared on the 14th with slight pain; she had a little more pain the next day, but nothing like what she used to have. The discharge was natural in colour and quantity; no coagula. None of the upper pain of back. The lower, or sacral, pain seems connected with a hemorrhoidal diathesis, and confined bowels; says that quinine confines the bowels. I dilated the os uteri somewhat, and then passed a much larger metallic tent. Extr. taraxaci om. nocte; sulphur. precep. et magnes. carb. o.m.

Dec. 9. The tent slipped out last week, and she returned to town. The os uteri was still small; its lips very uneven from the above-mentioned little excrescences. I dilated it again, and passed a still larger tent; it produced great irritation at first, with vomiting and pain for some hours, which were relieved by hot semicupium, &c. Rep.

16. After wearing the tent a few days it slipped out, when the catamenia came on. I did not reintroduce it, as the canal of the cervix so quickly recovers its former contracted state. She has improved considerably in general health, so that in a month or so I will divide the cervix.

Sept. 3, 1847. I divided the anterior wall of the cervix early in January, and she wore the metallic tent for a fortnight, until the incision was healed, without inconvenience. She writes to-day, giving a favourable account of herself—"Much better than I have been ever since I married," and "I am much stronger, and feel more *really well*, upon the whole."

Dec. 27. Her mother called on me to say that the catamenia in August were more copious than usual. They appeared again on the 27th of September, but were then pale and scanty; since which time there has been no further appearance of the menses. She complains of pain above the symphisis pubis, which she ascribes to flatulence; also, of being very sick, with an unusual craving for food even at night. The breasts have increased in size; the bowels are confined.

℞. Ferri sulph., gr. ij.; magnes. sulph., ℥jss.; acidi sulph. dil., m. viij.; syrupi rhœados, ℥ss.; aq. menth. pip., ℥jss. M. ft. haust. om. mane vel bis die sumendus.

Jan. 6, 1848. Her mother writes word that the fulness of the breasts is much more marked; that the abdomen has distinctly increased in size, and that she considers herself to be in the fourth month of pregnancy. Her general health is good, but she complains of occasional severe pain of the left side of abdomen, which extends across. Rep. mist. ferri sulph. ex m.m.s. o.m.s.

℞. Lin. camphoræ co., ℥ijss.; tinct. opii, ℥ss. M. ft. linimentum parti dolenti applicand.

℞. Ext. lactucæ, ext. lupuli, camphoræ, aa. ℈j. M. ft. pil. xij. sumat ij. urgente, dolore et rep. post horas ij. p.r.n.

I was unable to make out satisfactorily either the exact cause or history of the severe attack of inflammation (I presume of uterus and vagina) from which she had suffered about a year before I saw her; it was attributed partly to cold, but to this we may fairly add the unhealthy, feeble condition of her system, and, from the contracted state of the parts, a considerable degree of irritation consequent on marriage. Moreover, the uterus itself had been in an unhealthy, irritable state for many years; the menses very irregular, partly from her feeble powers not always furnishing the due supply, and also, when secreted, being retained in the uterus by the contracted state of the cervical canal. To this circumstance must be attributed the fact of the uterine cavity being longer than the natural by nearly half an inch, as measured by the uterine sound, and also the great ease with which the catamenia appeared after dilating the os and canal of the cervix. The thick, bloody fluid which was seen oozing from the os uteri was probably some menstrual discharge which had been retained in the cavity of the organ.

It is under circumstances of uterine irritation like these that we see the tongue so invariably presenting a dry, rough appearance, from having peculiarly short-napped fur (if I may use such an expression), which I hold to be a valuable sign that considerable irritation is existing.

The cicatrized condition of the vagina, and the fringe of fibrinous exudations on the os uteri, marked the severity of the inflammatory attack from which she had suffered; and, as far as I could learn, she had given her medical attendant but a bad chance of treating it successfully by concealing most of her local symptoms through a feeling of false shame.

The permanency of the effects produced on the os and cervix by wearing a metallic plug or tent, are variable: in some cases the part remains dilated for some little time, and now and then appears to continue so; but in many, as in the present case, it contracts immediately after the removal of the tent, and quickly returns to its former condition. The case which I have given in my previous report is in this respect very similar. As the metallic tents were expelled each time that the catamenia came on, we may, I think, infer that the uterus possessed a fair amount of contractile power, and that, therefore, the obstruction to the discharge of the catamenia from the nearly closed condition of the canal must have been very considerable. The termination of the case in pregnancy is what I had scarcely hoped for—the general debility and haggard appearance, the long history of previous ill health, and the unfavourable state of the uterus for conception, prevented any expectations of such an event; but after removing this constant source of annoyance and irritation to the system by dividing the cervix, and thus effecting a permanent dilatation of its canal, the health began rapidly to improve; and this favourable state was probably still further promoted by a change of residence to another part of England.

REMARKS ON THE ALLEGED CASE OF DEATH FROM THE ACTION OF CHLOROFORM.

By J. Y. SIMPSON, M.D.,
Professor of Midwifery in the University of Edinburgh.

In a paper on Chloroform, written in November last, and published in the December number of "The Monthly Journal of Medical Science," I stated my belief that "the power which we have with it of bringing down the pulse, &c., shows that, if exhibited in too strong a dose, and given uninterruptedly for too great a length of time, it would doubtless produce serious consequences, and even *death*."—(P. 417.)

Knowing the very great extent to which chloroform has latterly been used, the immense supplies of it manufactured and sold, the many, many thousands of persons already submitted to its influence, and the want of caution with which its administration has sometimes been conducted, I have felt and repeatedly expressed surprise that no fatal disaster should have accompanied its exhibition.

At last an alleged fatal case of its employment has been reported as having occurred in the practice of Mr. Meggison, of Winlaton, Newcastle; and a coroner's jury has returned a verdict of "Died from congestion of the lungs, from the effects of chloroform."

The unfortunate patient certainly died when under the influence of chloroform; not, however, as I believe, from its effects, but from the effects of the means used to revive her.

I think this will be evident from a statement of a few of the particulars elicited at the inquest, and published in the *Lancet* of Saturday last, and from Mr. Meggison's own report of the case in the *Medical Times*.

The patient was a girl of fifteen, and the dose of chloroform given was not very large—"about a teaspoonful." Apparently, in "about half a minute" after the inhalation was begun, the operation (the extraction of the nail and matrix of the great toe for onychia) was rapidly performed. She was at the moment not under so deep a degree of anæsthesia as we often see in surgical cases, for "her breathing was a little quickened, but *not* stertorous;" her pulse was "not altered in frequency;" and "when the incision was made she gave a struggle or jerk." "She kicked out," says Mr. Meggison, "and I, thinking the chloroform was not sufficiently potent, was proceeding to apply more to the handkerchief, when her lips, which had been previously of a good colour, became suddenly blanched, and she spluttered slightly at the mouth, as one in epilepsy. I threw down the handkerchief and gave her cold water, *immediately* followed by brandy. In a minute more she ceased to breathe." "I gave her some brandy, a *little* of which she swallowed with difficulty."(a) "She moaned (according to her father's evidence) *after* the nail was off; he (Mr. Meggison) afterwards put some brandy in her mouth, and she *rattled* in her throat."

From the above extracts, it evidently appears that the girl fell into a state of syncope (becoming suddenly blanched, &c.) at the time of operating. The syncope might result from the operation, or from the chloroform, or from both. I have seen in a few rare cases such a blanched state of the lips and features come on, under the use of very powerful and deep doses of chloroform, simulating syncope, and with the respiration temporarily suspended; but these symptoms always readily disappeared, and the patients speedily recovered, by simply removing the chloroformed napkin from the face, and letting them alone; and I most sincerely and conscientiously believe that such also would have been the result in this unfortunate instance, provided nothing more had been done. But, with the best of motives and intentions, water and brandy were poured into the girl's mouth. They were, of course, allowed to rest in and fill up the pharynx of the patient, as in her state of syncope and anæsthesia she was not in a condition to swallow them. The attempt at swallowing mentioned in the evidence was, I have no doubt, an attempt at breathing only, or of breathing combined with swallowing. But it was impossible for the patient, in her weak and torpid state, to inspire through a medium of water and brandy any more than it would have been possible to inspire if the whole head and face had been submersed in the same fluid. The liquid would be partially drawn into the larynx. "She rattled in the throat." "In a minute more she ceased to breathe."

(a) *Medical Times*, p. 317. Mr. Meggison's own report of the case.

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In commenting on injuries of the head, Mr. Guthrie, when speaking of the treatment of concussion of the brain,—a state rendering the sufferer, like Mr. Meggison's patient, "senseless and motionless, and the countenance deadly pale,"—correctly observes, "It is improper to put strong drinks into his mouth, and, if he should be so far recovered as to make this *attempt*, they might possibly enter the larynx and destroy him." Would not the same result happen if the same treatment were applied to a person in a deep state of apoplexy, epilepsy, syncope, or narcotism?

The girl died, then, as I conceive, from the *nimia cura medicina*—choked or asphyxiated by the very means intended to give her life. And this view of the case is farther completely borne out by the pathological fact, that the appearances observed at the *post-mortem* inspection of her body were *all* exactly those produced by simple asphyxia.

For the principal morbid appearances were the following. I give them in an arranged and numerical order:—

1. *Heart and Blood.*—"The heart contained dark fluid blood in both its cavities; very little in the left."

2. *Lungs.*—"*Not collapsed* on opening the chest."

3. *Lungs Congested.*—"The external appearance of both lungs over the whole surface, but especially at the inferior portions, was that of organs in a very high state of congestion."

4. *Bronchi.*—"The pulmonary tissue was filled with bloody froth, which was also found in the interior of the bronchi mixed with mucus."

5. *Larynx and Epiglottis.*—"On examining the larynx and trachea, the epiglottis was found reddened at the summit, of a vermilion hue. The mucous membrane of the larynx was redder than natural, mottled with vascular patches. The sinuses of the larynx contained a good deal of dark mucus."

6. *Parenchymatous Abdominal Organs.*—"The liver, kidneys, and spleen were more congested than usual."

7. *Brain.*—"The brain, externally and internally, was more congested than usual."

These are all the special morbid appearances in the case, as officially reported to the coroner; and one and all of them are exactly the special morbid appearances found in the bodies of patients who have died of simple asphyxia. In proof of this I shall cite below in a footnote (and in the same arranged order for the sake of comparison) the morbid appearances characteristic of asphyxia, as given in a careful and elaborate article on the subject, by Dr. Carpenter, in "TheLibrary of Medicine," vol. iii., pp. 221, 222.(a)

I have taken Dr. Carpenter's article as the one that has first come to hand. I might refer equally to Dr. Roget's "Essay on Asphyxia," in "The Cyclopædia of Practical Medicine," for the same kind of proof.

The morbid appearances, I repeat, in Mr. Meggison's patient were precisely those seen to result from pure asphyxia. They were, on the other hand, different in some essential points from the morbid appearances seen on the bodies of animals killed by the inhalation of chloroform. About two months ago I witnessed a series of experiments made by a committee of the Medico-Chirurgical Society of Edinburgh on several animals poisoned with fatal doses of chloroform. In Mr. Meggison's patient, the blood found in the heart was "dark" and "fluid." On the contrary, in the fatal experiments to which I allude, "firm coagula of blood in the heart were found in *every* case where chloroform was inhaled."(a) In some the lungs were congested; in others, quite healthy; in none did we find the brain congested as in Mr. Meggison's patient.

Besides, the *dose* of chloroform exhibited by Mr. Meggison was so small as to render it exceedingly improbable that *it* could have been the essential cause of the death of the patient.

Altogether, then, while it thus appears highly improbable that the fatal result in Mr. Meggison's patient could be the consequence of the use of chloroform, and entirely due to it, the conditions in which the patient was placed were such as would almost inevitably have produced death in any person by asphyxia. The morbid appearances were not those resulting from chloroform; they were those resulting from asphyxia; and, as I have already stated, the verdict should not have been "Died from the effects of chloroform," but "Died from the effects of means used to restore her from the state of anæsthesia."

In making this remark, and coming to this self-evident conclusion, I have no desire to throw any—the very slightest—blame upon Mr. Meggison. Nothing could be possibly further from my wishes and intention. On the contrary, I take very great blame to myself for not publishing sooner, as I intended, a suggestion to my professional brethren to warn them against this source of danger in the treatment of chloroformed or apathized patients. To point to it as I have now done will, however, I hope, be sufficient; and I will merely add that I sincerely believe, from all that I have seen, that, in such a case as Mr. Meggison's patient, *nothing* whatever requires to be done but the removal of the handkerchief or inhaler, and the free admission of air to the face of the patient. If aught else is to be attempted, it should amount to sprinkling cold water on the face, compressing the chest, or otherwise exciting respiratory acts; and, if still further measures are required, then doubtlessly *artificial respiration* should be the measure employed.

Edinburgh, Feb. 7.

(a) *Morbid Appearances after "Simple Asphyxia rapidly induced."* — (Extracted from Dr. Tweedie's "Library of Medicine," vol. iii., p. 221.)

1. *Heart and Blood.*—"The accumulation of blood in the right side of the heart, and in the vessels connected with it, namely, the systemic veins and pulmonary artery, and the comparatively empty state of the left cavities, as well as of the pulmonary veins and systemic arteries, are the appearances most characteristic of asphyxia." "The blood is usually found fluid."

2. *Lungs not Collapsed.*—"The lungs are greatly distended, and expand so as to meet over the pericardium."

3. *Lungs Congested.*—"When exposed to view they present a dark brown, sometimes almost blackish, hue externally; but their parenchyma exhibits a redder tint when cut into. The engorgement is here in the arterial system, but it is occasioned by the accumulation of venous blood, of which large, dark, thick drops flow out when incisions are made in the substance, and slight pressure employed."

4. *Bronchi.*—"A mucous froth, rarely sanguinolent, covers the lining membranes of the larynx, trachea, and bronchi; the membrane itself is sometimes deepened in colour."—("Appearances after Asphyxia from Submersion," p. 244.)

5. *Larynx and Epiglottis.*—"Venous congestion is usually well marked in the root of the tongue, which often appears as if injected. It extends also to the mucous membrane of the larynx and *epiglottis*, of the trachea and bronchi, which is deeply marked by vascular turgescence."

6. *Parenchymatous Abdominal Organs.*—The venous congestion is "very perceptible in all organs that are largely supplied with blood. Thus the liver and spleen are in a state of engorgement."

7. *Brain.*—"The veins and sinuses of the head, of course, partake of the general venous congestion; and in well-marked cases an unusual number of red points is seen on slicing the brain."

(a) See Dr. Bennett's report on the subject in "The Monthly Journal of Medical Science" for Jan., 1848, p. 539.

A REPORT ON THE CAUSES, CHARACTER, AND TREATMENT OF SPASMODIC CHOLERA AS IT OCCURRED IN HER MAJESTY'S 86TH REGIMENT, AT KURRACHEE, IN JUNE, 1846.

By ALEXANDER THOM, Esq.,
Surgeon of the Regiment.

Communicated to the *Medical Times* from the Army Medical Board.

General Remarks.—It often happens that sudden calamities or harrowing scenes pass so rapidly as not to leave on the minds of those engaged in them that undefined horror and awe which is associated with the recollection of them, when lapse of time has allowed the thoughts to dwell on the minutest details. To revert to, and attempt to describe, that terrible death-blast in the form of cholera, which has just swept over our unfortunate corps with almost unexampled fury, is even a more painful task than to relate the almost hopeless efforts to arrest or turn aside its overwhelming force, when moving amidst its ravages, and trying to drag its victims back to life. There is really something so appalling in this retrospect of a few days' pestilence, that the whole appears almost as a dream, and renders it difficult to realize its truth.

Sentiment is generally banished from medical reports, and very properly so; but there are rare and exceptional occasions when it may be pardoned, provided it does not interfere with action, but is confined to the closet, where, on the exercise of memory on past events, the natural feelings will assert their sway. Nor is it necessary that the heart of the medical man should be closed against all sympathy with the sufferings of his fellow-creatures, particularly of those who are consigned to his charge, and with whom he is linked by ties not to be despised.

I have witnessed diseases of a severe and fatal kind, and cholera itself in an apparently grave form; but I never could have anticipated, even in India, its appearance in so appalling a shape as that in which it was recently developed in our regiment at Kurrachee. It almost literally burst forth like a thunderclap, followed by a lethiferous blast, proving almost instantaneously fatal; and, unhapily, fell in its full force on the 86th Regiment. In general, when other diseases of a malignant kind assail a community, they gradually reach a certain acme, and from thence decrease at the same rate, especially in contagious or infectious maladies; and even in endemics and epidemics this is the case in a greater or less degree. In the case before us, however, the pestilence showed itself in the space of a few hours with its most concentrative violence and extensive spread; and in the course of two days its virulence began to subside in a gradual manner till it finally ceased, or assumed a type less terrible and irresistible than spasmodic cholera. Its progress is well traced in the following table of daily admissions and deaths, and illustrates the fact to which I refer:—

A. *Return of Daily Admissions and Deaths from Cholera in her Majesty's 86th Regiment from June 11 to July 20, 1846.*

Dates.	Admissions.	Deaths.	Dates.	Admissions.	Deaths.
June 11..	1	1		390	223
12..	2	0	June 25..	2	2
13..	2	0	26..	0	2
14..	1	1	27..	0	2
15..	47	8	28..	0	1
16..	105	70	29..	2	1
17..	104	53	30..	5	2
18..	49	32	July 1..	1	1
19..	23	18	2..	4	1
20..	25	16	4..	1	1
21..	20	11	5..	1	1
22..	5	5	13..	3	1
23..	3	3	20..	1	0
24..	3	5	Total..	410	238
	390	223			

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The daily returns were made up from six A.M. on one day to that of the next.

A case or two had occurred a few days before the great outbreak, but as they were not unusually severe, and occasional instances of the disease had been known in the cantonment for several months, we did not apprehend a catastrophe such as followed.

Outbreak.—On Sunday, June 14, a hot, muggy, and oppressive day, with little wind, there were only two bad cases admitted in the morning. At twelve o'clock, however, others of a most virulent kind began to show themselves simultaneously in every company of the regiment, and at every part of the camp, so that by four o'clock sixteen had been brought into hospital; and, the disease continuing to spread with startling rapidity, I immediately went to the military authorities to have the camp moved next morning.

Change of Camp.—It was arranged by the brigadier to send the regiment to a cool open point near the sea, only a mile or so from the old encampment, but the governor ordered it out to Ghizra Bunder, four miles off. Accordingly this was carried into execution on the following morning.

Hospital Accommodation.—When the cholera broke out we had about 100 old cases of sick, eighty of which were in two large hospital wards given up to us by the 60th Rifles, on our return from field service; and the remainder were in tents. We were thus without any spare room, even for a very moderate increase of sickness, and still less so for the accumulating masses of men brought in as fast as the dhoolies could go for them, and laid on the floors of the hospital between the rows of beds belonging to the other patients.

Scene in Hospital.—As the night closed, in a scene presented itself within the walls of our hospital such as few minds can conceive, or pens depict. The floors were literally strewed with the livid bodies of men labouring under the pangs of premature dissolution, surrounded by crowds of attendants trying to alleviate their hopeless sufferings. Many were brought in with the cold and clammy damp of death, as if sudden obstruction of every vital function had taken place, and the fountain of life had been arrested by an invisible but instantaneous shock. For these all human aid was in vain. Others were struggling with all the violence of strong men against the agony produced by the spasmodic action of the muscles of the body, and their yells and cries, commingling in fearful discordance with the subdued groans and gaspings of those nearer to the closing scene, were truly heartrending. It was, indeed, a sight never to be forgotten, to behold the powerful frames of the finest men of a fine corps, who had that morning been in apparent good health, and most of them on the evening parade, as if at once stricken down and striving with the last efforts of gigantic strength to resist a death-call that would not be refused.

Effect on the Old Cases of Sick.—I need hardly say what effect such a scene as this must have had when suddenly placed before the old cases of sick, who had already been, by long confinement and severe disease, depressed in body and mind. The result might be expected: about twenty of them rapidly fell victims to the fell scourge, thus unexpectedly brought before their eyes in its most hideous form. Fear was strongly depicted in the faces of some, and these almost immediately sunk under the shock; often, in half an hour after seizure, cold sweats and collapse placed them beyond the power of medicine. It was not the least distressing part of the affair that these poor fellows could not immediately be removed from a place so full of horrors, and that medical officers and attendants were so incessantly occupied with the continued stream of fresh cases of cholera which poured in as to leave little time to watch the first signs of the disease among the old patients.

Arrangements for the Sick.—The suddenness and extent of the blow, its occurrence at night, and on a day when all the public offices and stores were closed, and their attendants absent, all united to heighten our difficulties. It was midnight before tents could be procured and pitched, to remove the old sick cases into, so as to separate them from those labouring under cholera, to whom the two hospital wards were wholly given up. Again, it was found necessary, at break of day, to move the old patients into a barrack-room cleared out by her Majesty's 60th Rifles, in order that the tents, which they had only occupied for a few hours, might be struck and sent out to form a field hospital. All this took time and trouble, and, by the morning of the 15th, the whole hospital servants were exhausted and almost unfit for work; yet rest could not be allowed, as there were none to relieve them, until sickness speedily deprived us of the services of most of them.

Spread of the Disease.—On the 15th the disease was, if possible, spreading more rapidly and with greater virulence than on the previous day, and, from the line of march and new encampment, cases were brought in every ten minutes. By twelve o'clock, or barely twenty-four hours after its first appearance, the old hospital was filled with eighty or ninety cases. After this it became necessary to accommodate the fresh cases in the field hospital at the camp, and in twenty-four hours more this was also filled. After the 16th June, however, the number of daily admissions began to decrease rapidly, but the places of those who continued to fall victims to the disease were too often occupied by men who had lately been their attendants. Indeed, it not unfrequently happened that the soldier attendant was found lying in the agonies of the disease, with which he had suddenly been seized, beside the pallet of his dying charge and comrade. How many painful instances of this kind do we all recal, where a good and worthy man was left in health, actively and assiduously tending his fellow-soldier, and on our returning to the same part of the hospital, in a quarter of an hour afterwards, he was found to be another victim to the pestilence which raged on every side!

Hospital Attendants.—The occurrence of such an enormous number of cases of a fatal malady within so short a space of time, and each individual requiring at least one special attendant, wholly precluded the possibility of procuring assistance of this nature from the ordinary sources. The consequence was that we were under the painful necessity of employing the soldiers, no doubt already predisposed to the disease, in this fatiguing and harrowing duty; and well and zealously did they perform it. But all this unquestionably increased the evil, for, at a moment when rest and quiet were especially requisite to guard against the exciting cause of so general and deadly a complaint, it was found that nearly two hundred men were constantly employed, night and day, on a duty at once harassing to the body and distressing to the mind and feelings, and tending to develop the latent seeds of cholera.

But to enter into a detail of all the conflicting difficulties, forced arrangements, and necessary substitution of the lesser of two evils, would occupy more space and time than I can well afford, and perhaps, after all, would be to little purpose. But a glimpse at our situation, such as I have given, seems to me to be in some degree required, before I proceed to the history of the causes, pathology, and treatment of one of the most terrible plagues that has for centuries assailed the human race.

Atmospheric Origin of Cholera.—Before adducing arguments arising out of the observations lately made on cholera, I may here briefly state the nature of the opinions which I venture to advance on its causes. It really appears, both by its previous history, and especially by the facts connected with its spread and outbreak at Kurrachee, in every corps, native or European, as well as her Majesty's 86th Regiment, that its origin is purely of an atmosperic nature. By a combination of atmospheric agencies, peculiar to certain seasons in the peninsula of India, the human system is subjected to changes engendering a choleric diathesis, which, by great intensity of the remote causes, may run into the disease in its worst form; but that this state of the system generally exists in a more modified degree that merely predisposes the constitution to an attack, and may, by one set of collateral circumstances, be exasperated or hurried into action, or, by another, be corrected or even wholly removed, so that, if the disease does break out, it will be in a comparatively mild manner, or perhaps appear under the form of another ailment.

When large bodies of men are exposed to the same causes of epidemic disease, if it is ascertained that one set of persons fall victims to it by hundreds, while another have comparative immunity from its ravages, it naturally invites us to inquire into the subordinate agencies apparently producing those results, and giving to causes, common to all, such different effects, more especially if it is shown that both have exhibited, in a more or less degree, the signs of that diathesis to which I have alluded. By such a course we may obtain both positive and negative information regarding cholera. This has been the case in a signal degree at Kurrachee; and, if it does not throw much light on the pathology of the disease, it promises to elucidate those circumstances which tend to control or favour its development, and from hence derive some prophylactic knowledge, perhaps quite as useful, in a practical point of view, as the medicinal treatment based on the alleged nature of the morbific miasm said to produce it.

The Causes of a Choleric Diathesis.—The atmospheric causes to which I refer are, high temperature, associated with a degree of humidity of the atmosphere approaching to saturation, assisted by a decrease in the pressure of the air and diminished proportion of oxygen, such as belongs to the hot season in India, which act on the human frame with greater intensity when they suddenly succeed a dry and opposite condition of the atmosphere. In addition to these general and periodical agents of disease we must enumerate an absence of aërial currents or calms, or the light winds being impeded or interrupted by the geographical features of the country peculiar to certain localities, such as mountains, forests, dense vegetation, or the ill-arranged habitations of man—narrow streets, high walls, and ill-ventilated apartments. All these causes seem to us to be fully capable of producing that state of the system which I have designated a choleric diathesis in a more or less prominent degree, according to their extent and their separate or combined action, and no doubt greatly influenced by the mode of living and habits of individuals.

The Latent Disease.—It may be reasoned from analogy, that when once this diathesis is generated in the system it may remain latent for a long period, and perhaps only break out after the primary causes had ceased to be very remarkable. We know well that the body, when once predisposed to other forms of disease peculiar to certain seasons and localities, continues to be liable to a first attack, or to relapses, and even for a long time after it has been removed from the obnoxious climate. Hence we meet with occasional cases of cholera at all seasons in India, and at times when the more important causes which have been assigned are not very perceptible, while the general prevalence of this malady will be found to be simultaneous with, or soon after, the existence of these causes in a conspicuous degree.

Analogy with other Diseases.—It is really difficult to account for the sympathy which exists in many constitutions to have attacks of some forms of disease after the supposed causes have ceased, and this even at the distance of many years; but we can appreciate the fact. A striking example of this at once presents itself in the proneness of attacks of the intermittent or remittent fever of the tropics which is experienced after the individual has been for years in England, and at places where the alleged sources of such complaints are unknown; and there is a much closer connection between these and cholera than I can at present enter into.

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At Mauritius, where intermittent fever is never met with among its inhabitants, I have seen the Cooly emigrants from India suffer from ague in the autumn with all the severity and characteristic symptoms of the banks of the Ganges; this continued to recur for several years, with this peculiarity, however, that at each successive time it became of a milder nature, till it almost ceased, except in a few persons labouring under organic disease. In the same island an officer of the commissariat department, who had been at Sierra Leone eight or ten years before, became my patient with the remittent fever of the African coast in all its genuine character. Scurvy, arthritis, rheumatism, and all diseases which are preceded by a specific diathesis, have the same tendency to recur from slight causes, after they have been once established.

Casual Cases of Cholera all the Year round.—Hence, as in the south of Europe where the periodical fevers prevail with violence at certain seasons, they are also occasionally met with all the year round, so we must be prepared to expect casual cases of cholera at all times of the year in India. But, as I have already said, it will be found to prevail with greater intensity and extensive diffusion at the periods and places where, after dry winds, there is high temperature and the air is charged with vapour, and the winds weak or checked by natural obstacles.

Certain Seasons favourable to its Development.—Thus it is almost universally found that the season or state of the atmosphere which is most favourable to the development of cholera is that which precedes the approach of, or ushers in, the S.W. monsoon, all over India and the neighbouring parts of Southern Asia; in fact, that after the dry N.E. winds of the cold season, followed by the great heats of the early months of summer, the human frame becomes susceptible of a peculiar change incidental to a more or less rapid succession of the estival or moist winds and heavy rains, during which a choleric diathesis is established, and indicated by anorexia, gastric irritation, and tendency to diarrhœa, &c.; and spasmodic cholera will be displayed in a few cases, perhaps, or more generally. As the wet monsoon sets in more or less early, or rapid, in different seasons, and varies greatly in strength as well as in the deposition of vapour over the diversified regions of India, so also must its effects on the human body be equally subject to modifications, even without reference to the concomitant circumstances which influence the progress of all diseases. It would seem, however, that a *combination of causes* is necessary to develop cholera to a formidable degree, and that neither heat nor humidity is separately capable of producing this disease; and perhaps it is only after the system has been subject to a comparatively cool and dry atmosphere, that their united action leads to such deleterious results. The more rapid this transition is, the more likely is the system to suffer from it; and, although the inherent power of the body to adapt itself to changes of climate is very great, yet this is not always accomplished without danger to some of the functions; and in persons weakened by a residence in India or Scinde, previous fatigues or diseases, intemperate habits, &c., the effects must be still more severely felt.

Peculiarities of the Climate of India.—The climate of India is, and from its geographical position must be, different in many important points from any other portion of the globe. For six months of the year it is subject to the cool and desiccating influence of a current of atmosphere which passes over one continued continent that extends to the very pole, and regions of eternal ice within the arctic circle. For the rest of the year the wind blows from the very opposite point of the compass over an uninterrupted surface of ocean, and, sweeping over the heated water about the equator, it reaches the coasts of India laden with vapour almost to the point of deposition. As these two conditions of the climate produce very different effects on man, and the transition from the former to the latter appears to expose him to disease of many kinds, but all allied to that under consideration, it may be well to stop and inquire into their more marked peculiarities.

Cool and Dry Monsoon.—During the N.E. monsoon, which prevails from October or November to March or April, the air is cool and comparatively free from moisture. In this country, about January or February, the dew-point is generally from 20° to 30° below the temperature of the shade, and the barometer stands half an inch higher than in the hot months, thus showing an increased density of the atmosphere.

Effects on the System.—Every one almost knows, theoretically or practically, the effects of such a climate. The dryness of the air facilitates evaporation, so that, by the increased activity of the cutaneous and bronchial secretions, the body is relieved of the superabundant fluid, and its comparative coolness (50° or 60°, instead of 90° or 100°) gives tone to the system and braces the nerves. It is said to be *pure*, because it is dry; and, as we know that air contains more oxygen in a given volume at a low than a high temperature, it is more exhilarating and fitter for the purpose of respiration. This is also increased by the absence of moisture in the atmosphere, which displaces the particles of air according to the degree of its elasticity. The result is, that in healthy subjects, free from organic disease, the dry season of the year is productive of cheerful feelings, increased strength, and activity.

Hot Winds.—No sooner has the sun recrossed from the southern into the northern hemisphere, and approaches the tropic of Cancer, than a series of interesting changes in the climate of India begin to be experienced. At first the peninsula and central regions begin to acquire a high temperature and give rise to new movements of the air, called "hot winds," severely felt at certain places near the deserts; but, as these currents are dry, they are not found, either in this or any other country, to be unhealthy, that is, in a remarkable degree, and, although productive of certain febrile and some grave cerebral affections, yet they are free from other and still more severe and numerous diseases peculiar to an opposite state of the air.

Hot and Wet Monsoon.—The continued action of the solar rays quickly raises the mean temperature of Southern Asia far above that of the tepid ocean between it and the equator, and, by the rarefaction and ascent of air over it, currents of the denser stratum of air at the surface are gradually established from the cooler locality or ocean, to the warmer or sandy deserts and plains of Hindostan. Thus we have the south-west monsoon following hot and dry winds. Its influence is first experienced in a partial degree along the western coasts of the peninsula in the form of a sea-breeze setting in with the heat of the day; but its character as a monsoon cannot be determined till the temperature of the land at night, as well as day, exceeds that of the sea, and the indraught to land is continuous, with more or less strength and regularity. This is said to take place earlier at the southern parts of India than in the northern by "about fifteen or twenty days." Near Cape Comorin it begins about the 20th or 28th of May, at Bombay it is seldom established till the middle of June, and in Scinde the end of that month. Now, it is during these months that cholera is generally found to break out with most violence along the coast.

Chemical Change in the Atmosphere from Heat and Vapour.—As the sea-winds set in, the air suddenly becomes loaded with vapour, and the dew-point rises; at the same time the barometer indicates a diminished pressure, so universally noticed and so regular in the results, that it must be considered as a general law. The result is that a given bulk of air becomes specifically lighter, or rarified, and a certain portion of it is displaced by aqueous vapour; thus, by the late Professor Daniell's tables, it appears that air saturated with vapour, at 32°, has a

Specific gravity of	0·99737
At 90°	88260
Difference	0·11477

Consequently there is more than one-ninth less of atmosphere inhaled at each respiration by the human subject in the latter condition of the weather. But as even the atmosphere at 90°, when of the specific gravity of 0·8826, if saturated with vapour, contains 0·04766 of this last body which does not furnish oxygen to the blood, it follows that the volume of air inhaled by the lungs has about one-sixth less oxygen than at 32°.

Actual Case in Scinde.—Now, it may be remarked that these are extremes; but in Scinde we had the thermometer at 38° in January, and as high as 106° in summer, so that the difference is not of much importance in generalising. It may be also objected that the air is seldom charged to saturation with aqueous vapour; which is also true; but, during the S.W. monsoon and a period preceding, it was so nearly so, compared to the opposite season, that the absolute quantity of vapour which it contained at Kurrachee during the prevalence of cholera was very little below that of saturation, the dew-point being 83° at night and 86° in the day.

Fewer Respirations per Minute in Hot Weather than Cold.—There is another circumstance not to be overlooked, which increases the effects of a hot and humid air in the process of respiration; it is, that in hot weather the number of inspirations are diminished, so that at 90° it is 1·48 per minute less than at 30°; and the quantity of carbonic acid exhaled, and oxygen inhaled, are decreased in a similar ratio.

Effects of a Deficiency of Oxygen in the Air.—Thus we find that while the soldier in India takes no exercise and eats the same ration, and introduces the same quantity of carbonized and azotized matter into his system, during the hot as in the cold season, the nature of the climate at the former period is such as to interfere with an unlimited and sufficient elimination of these matters from the system, owing to the decreased quantity of oxygen which it receives. The consequence is, that the due and healthy equilibrium between the food consumed and the sources of its oxidation is lost, and carbonaceous matters are found to predominate, while the formation of fibrine is diminished. By a wise arrangement of Providence, the increased action of the liver and skin has a tendency to moderate this; but, failing these, diarrhœal, dysenteric, and cholera discharges from the mucous membrane of the intestines are the diseased methods which seem to be employed to relieve the system of carbonaceous matter. Hence it is found that in all hot climates carbon exists in larger proportion in the blood than in cold ones, and is developed in a tendency to diseases of the abdominal viscera.

Increased Importance of the Cutaneous Function in Hot Seasons.—We are led to another and no less remarkable effect of the S.W. monsoon on the human constitution, arising out of its extreme humidity. The skin, owing to the diminished action of the kidneys, is called on to perform new, increased, and important functions, viz., to relieve the system of azotized saline matters eliminated from the blood, to remove the superabundant fluid introduced into it by increased thirst, and to keep the temperature of the body in a natural state. These salutary processes are accomplished by a profuse and easy secretion from the sudoriferous and sebaceous glands, which is really amazing in the hotter regions of the earth. While the skin is thus conveying off the refuse of nutrition, it is said to imbibe additional oxygen; and the constant evaporation that goes on is the means by which the accumulation of caloric in the body is controlled, rendering the temperature of the body the same in India as in a winter in Siberia. It is hardly possible to conceive the body in any degree of health unless this channel, by which Nature relieves herself, is constantly open and in operation of the most active kind; and fact proves it to be so.

Noxious Agency of Humid Air on the Skin.—The cutaneous function may be carried on in

full vigour, and perspiration loaded with effete matter be poured out on the surface in large quantities, but it is equally necessary that the state of the atmosphere should be favourable to evaporation to enable the system to get rid of this excretion. In a brisk breeze, a well-ventilated situation, and dry air, this goes on rapidly, and is conducive to the highest degree of health, even if the mean temperature of the weather be very high. On the other hand, when the air is charged with vapour to within a few degrees of saturation, it will not receive more; evaporation is almost at a stand, and, as far as the human body is concerned, the secretion of the skin is checked, and rests on the body, and produces that oppressive, muggy feeling, as if the clothes were sticking to the body, and sense of languor, which is experienced on such occasions. Now, this is exactly the state of the air and human body at the setting in, and during the continuance of, the S.W. monsoon.

Especially in Hot Seasons or Climates.—The effects of winds holding aqueous vapour in solution, even in a cold climate or season, is most injurious to the health of man, of animals, and even of certain vegetables; but how much more so must it be in hot climates, where the removal of fluid by evaporation from the skin is the only means which exists of keeping the body at a low and natural temperature?

Congestive Effects of Non-evaporating Air.—Congestion of the whole vascular system, leading to derangement of every function of life, aggravated by the nervous depression induced by the simple effect of great heat, must be expected to exist, in a more or less degree, in almost every individual who may be exposed to such causes.

Stagnant, Hot, and Moist Atmosphere.—A hot and humid atmosphere, if kept in constant circulation by a strong wind, may not always produce its full effect in a hot country; for, although it should be near the point of saturation, and evaporation is very slow and limited, yet, by the rapid change of the layers next the skin, the removal of perspiration is greatly accelerated. But a still and stagnant state of such air will have an opposite effect, and give rise to the most serious maladies originating in congestion, such as cholera. This has been remarkably the case at Kurrachee. In 1845 a strong, cool, and cloudy, although humid, monsoon unceasingly prevailed all summer, while in 1846 the heat was much greater, the wind light and unsettled, often marked by calms of two or three days; and in such a condition of the atmosphere did cholera break out.

The Causes vary with the Seasons.—These general causes of cholera are, of course, subject to diversity in regard to the time and intensity of their prevalence, as the seasons of India are liable to vary in common with every other climate in the world. The year may be unusually hot or cool, the wet monsoon early or late in setting in, either generally or at particular localities or regions; for instance, at Kurrachee it is not unusual to have the sea-breezes, and, of course, moist air, prevailing for a few weeks in February or March. But it will be no difficult matter to show that, as soon as the dry N.E. winds fail, or give way to hot easterly currents of air, and the indication of the sea-winds are perceived, then cholera may be looked for. It will be found to prevail with greater violence and regularity of recurrence at stations subject to heat and humidity, where the S.W. monsoon is first experienced, influenced by the features of the country, or buildings, tending to arrest ventilation. The condition of the air near the coast is less rapidly extended to the north and east, or interior of Asia, where it is at all times less steadily maintained; hence cholera seldom visits the countries most removed from the sea with as much severity or regularity as those of the coast; but certain seasons may occasionally favour its development, particularly near rivers or flat moist tracts. It would also appear that this epidemic shows itself annually much earlier at the Madras presidency stations than in Bombay or Bengal. Indeed, the central part of the peninsula of India, from its nearness to the equator, its mean higher annual temperature than the rest of India, and the earlier and more constant recurrence of the causes which give rise to sea-winds, is much more liable to have cholera at all seasons than in Scinde or Upper Bengal.

Usual Track followed by Cholera.—The spread of cholera may generally be traced from the southern parts of the Indian territories, and from the coast, towards the interior. Thus, long before its visit to Kurrachee, we heard of its appearance in the Madras presidency, and subsequently at Poonah, Bombay, and Ahmedabad, Deesa, and finally arriving by the coastward to Scinde, where it first broke out at the seacoast, and from thence gradually extended upwards to Hydrabad and Sehwan, where its further progress appears to have been stopped, as it never reached Sukkur or Upper Scinde. Now, it is a curious fact that the influence of the sea-breeze is seldom felt higher than Sehwan, and I can well remember, in descending the Indus in April, that we did not meet this till near Hydrabad, after which we encountered a westerly wind of great strength and steadiness, as far as Tatta, where cholera often prevails. The effects of this wind on our men, cooped up in steamers, and coming down from the dry air of Upper Scinde, was by no means unlike mild attacks of cholera, and, on board one of the vessels, the sudden appearance of many cases of diarrhœa in one night led them to apprehend an outbreak of the disease in a grave form. Had our men been long exposed to this, I have no doubt such would have been the case.

Similar Cases of Cholera occasionally occur in Europe.—It may be objected that the causes which I have assigned to be those capable of producing the cholera, or choleric diathesis, are not applicable to its appearance in the northern parts of Europe and Asia, and other parts of the world. To answer this would embrace a mass of details too comprehensive for the present paper; but I may briefly say that it is easy to show, in general terms, that such causes may occasionally be developed wherever this scourge has gone to. The seasons, it is true, are rare, and the combination of causes which I essay to describe cannot often occur, but they may do so at occasional intervals, just as much as we see extraordinary years of heat, drought, or rain, producing famine and pestilence, at the lapse of centuries perhaps; and it occasionally happens that there is a succession of such phenomena for two or three seasons.

Summer Heat over Europe.—It is a well-remembered fact, that the summer (if not summers) preceding the visitation of cholera in Europe was exceedingly hot all over the northern hemisphere. This very year the heat in England and on the Continent has been equal to many parts of India. By the *Medical Gazette* I see that it ranged as high as 90° and 93° in the beginning of June; actually hotter by several degrees than it was at this place at the same time. Nor has the heat been of a brief continuance, for if not often *above* 90° it has been very little *below* it, up to the very latest accounts (the end of July) which we have. The result is, that bowel complaints of a suspicious nature, called English cholera, have given rise to great anxiety in London, and a board has been formed to watch the progress of the sickness.

Now, I should not be surprised to learn that, with the setting in of the rain and humid or S.W. winds, cholera in a severe form was to break out.

If, then, such is occasionally the case in England, even with its insular position and climate, we may readily infer that a similar state of the weather has prevailed all over Europe. At Paris we know this is the case. Now, this high temperature is not only *one* of the predisposing causes of cholera, or bowel complaints in a less aggravated form, but, by its effects on the land of Central Europe or Asia, it will ultimately bring into action sea-winds or humid strata of air, the effects of which constitute the second, and most formidable, cause of that peculiar diathesis in the human system, which I have termed "choleric."

General Causes of Cholera in Asia.—It is ascertained, as far as our present knowledge goes, that over the northern and central parts of the Asiatic and European continent, the prevailing winds during the whole year are *north-easterly*, and in the winter season these extend to the very ocean near the line. Now, the universal laws of nature, to which we have adverted, in reference to the periodical winds of Hindostan, are equally predominant over the vast extent of land under consideration; and at certain seasons, after the greatest heats are established, the sea-winds, loaded with moisture from the Indian Ocean and Arabian and Persian seas, are diverted towards the land of Asia, while those of the Mediterranean and Black seas, and North Atlantic, blow towards Central Europe. Such is, unquestionably, the general course of the winds; but these must, from the natural configuration of the surfaces of the land and water, or from accidental circumstances peculiar to certain seasons and regions, be liable to great variations in their direction, and irregularity in strength.

Regions Visited by Cholera.—These remarks are made in general to explain the peculiar climate of those tracts of inhabited land over which cholera has usually travelled: for Affghanistan, Persia, Turkey, Southern Russia, and Central Europe form a chain of countries which are exposed to alternations from cold and dry to hot and moist currents of wind, resembling those of the Indian peninsula, but in a modified degree, except in extraordinary hot years, when the similarity will be perfect; and it is by this route that cholera has usually found its way from the N.W. of India to Europe.

Cholera not a New Pestilence.—I cannot now quote authorities, but I think it will be an easy task to show that many of the great recorded plagues, especially those called the "black death" and "sweating sickness,"—*mort du chien*, were true cholera, or modifications of it; that these so-called plagues have chiefly visited the kingdoms of Persia, Asia Minor, and Europe, or those regions most likely to be influenced by the atmospheric phenomena to which I have devoted so much attention. Under the term diarrhœas and fluxes, many very fatal diseases have prevailed, and were most likely the same as the modern cholera. Dr. Sydenham gives an account of the English cholera so closely resembling that which prevails in India, and has lately been called *Asiatic* in Europe, that there can be no doubt of their identity. In short, the disease is traceable to the most remote periods of time, although now better known and described; and with the recurrence, at longer or shorter intervals, of unusually hot and humid seasons, we must expect to have this epidemic in some form or another.

(To be continued.)

THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

By GEORGE CORFE (Author of "A Popular Treatise on the Kidney," &c.), of the Middlesex Hospital.

(Continued from page 294.)

CLASS II.

DIVISION II. *Thoracic Derangement; Countenance Anxious.*

From Laryngitis.
,, Tracheitis.
,, Pleuritis.
,, Empyema.
,, Spasm of the diaphragm.
,, Pleurodynia.

Laryngitis.—This disease stands foremost in the above group, for many reasons. The chief one is on account of its formidable character and destructive issue. I cannot suppose that much time need be occupied in pointing out the striking features of this malady. The countenance, and the condition of the respiration through the larynx, will be sufficient guides to the detection of laryngitis when it is once established. There is a sneering dilatation of the nostrils, and a retraction of the angles of the

mouth. Distress, anxiety, and suffering; an occasional "fighting" for breath; a pale, livid lip; a glossy cornea; and a fixed eyeball; with some faint touches of lividity over the cheeks, usually portray the features of the disease in its acute form. If the patient talks it is in a subdued tone, or in a half whisper; the chordæ vocales cannot vibrate from intumescence of their mucous surfaces. If he attempts to swallow even his own saliva, or any liquid, the swollen and stiffened epiglottis no longer perfectly does its valve-like office, but a sense of instant suffocation follows the effort to drink, in consequence of the fluid finding its way over the epiglottis into the ventricles of the larynx. The body of the larynx externally is tender, especially over the circo-thyroidean ligament, and where the minuter portions of the vocal organs are situated. The ear applied to the chest detects a wide difference between the efforts of inspiration and the small amount of air which actually passes into the lungs; and the stethoscope, gently laid over the inflamed organ, informs the ear that air passes through the larynx in a small or narrowed chink, by the harsh sound which its passage over this organ produces. (a)

When this disease is fully recognised, the next step to be taken is necessarily its treatment; and here I must allude to the judicious practice of Dr. Seth Thompson, who has himself been the subject of this fearful malady, and therefore his authority is of additional weight.

A female, aged twenty, stout, and well formed, was lately in the medical wards with this disease, and under this gentleman's care. The above physiognomical characters were strikingly delineated. Her throat was covered with leeches repeatedly; Dr. Thompson ordered her to take half a grain of antim. pot. tart. every half hour for six hours, after which it was given at longer intervals, so as to keep up a constant nausea upon the stomach. But another valuable remedy in this stage of the disease was also ordered; it consisted in the application of a large, soft, linseed poultice to the whole of the throat, and a still larger piece of oil-silk over the poultice, so as to cover its external surface, and prevent it from becoming dry and cold; this was renewed every three or four hours. Under such treatment the girl rapidly improved; but the subsequent remedy consisted in the exhibition of calomel so as to affect slightly the mouth, in order to remove the thickening around the larynx and its vocal chords, &c. She left the hospital quite well at the expiration of three weeks.

But the origin of this disease is often found to have a direct constitutional cause, and to be only the result of some syphilitic ulceration slowly progressing in the ventricles, or else on the edges of the larynx. The following instance, under the skilful treatment of Mr. Arnott, where the operation of laryngotomy was resorted to, will show the insidious nature of the disease, and its pathological character.

James Stanbridge, aged forty-five, admitted March 10 into the surgeon's ward, with fistulous opening in the urethra, and stricture. Five days after his admission he complained of sore throat, and shortly afterwards he had difficulty in swallowing, the voice became feeble, and he had some distress in breathing. Such was the man's account to me of his symptoms in their origin, when I first was requested to see him by Mr. Arnott on the 19th. The state of his respiratory system is thus noted down:—Countenance anxious, distressed, and pale; lips rather livid; respirations forty, attended with a gurgling but not a croupy noise; nearly total inability to swallow fluids, from the sense of threatening suffocation; the fluids "lodge," he describes it, about the bag of the pharynx, but in reality they do not lodge there at all; the anatomical explanation already referred to informs us that it is simply the spasm of the pharynx, consequent upon the stiffened and immoveable action of the diseased epiglottis. On applying the stethoscope over the larynx, air is heard to pass this organ with a whistling noise. Pain is referred by him to the larynx, especially on its left side. No pain on pressing the alæ of the thyroid cartilage, but there is a great sense of tightness across the lower part of the sternum.(a) On auscultation, the lungs were feebly inflated in every part, attended with sibilus here and there.

Diagnosis.—"Inflation and suppuration going on between the pharynx and larynx; lungs healthy." Mr. Arnott's diagnosis, however, extended beyond that which I had made, and it was that there existed syphilitic ulceration within the larynx itself.

He was ordered to have twelve leeches around the larynx, hydr. c. cret. gr. v. 6tis, and to inhale a weak solution of pyroligneous acid in hot water. On the following day he rambled somewhat; however, he declared himself better, though it was evident that he was in nowise improved. On the 21st, at five A.M., I was called up to see him, his breathing having become worse; his countenance was more sunken; his larynx did not labour in its office, nor did the distress appear to be so confined to the throat as it was to the bronchi; pulse 110, with power; scarcely able to swallow fluids, which rather ooze down than go by a voluntary act of deglutition; constant delirium; some hard cough. Hirudines xx. gutturi; pt. pulv. 4tis horis.

At nine P.M. of the above date, the patient was evidently sinking, the breathing was more laboured, but the muscles of secondary action in respiration were not yet brought into use, and it was, therefore, suspected that some of the dyspnœa arose from bronchitis; however, the distress in the larynx was evidently increasing, the patient was becoming more exhausted under the disease, and it was deemed advisable to attempt relief by means of laryngotomy, which was performed by Mr. Arnott at ten P.M. This gentleman divided the circo-thyroidean ligament, removed a portion of the cricoid cartilage, and thus left a tolerably large and patent wound for the free ingress of air. The man was decidedly relieved from all the urgent symptoms connected with the larynx, and he fell into a calm sleep, with an appearance of great exhaustion. He continued to breathe tranquilly until one A.M. of the 22nd, when the respirations rose to 60; he closed his mouth and breathed entirely through the wound; no tube was introduced, but he continued to sink, and died at seven, nine hours after the operation.

Post-mortem Examination fifteen hours after Death.—The front of the trachea, larynx, and anterior mediastinum was filled with pus, infiltrated throughout the cellular tissue; and on each side of the trachea, but more so on the left, there was a large amount of purulent matter. On the edge of the pharynx, just at its commencement, and where it passes around the top of the thyroid cartilage, there was extensive abrasion of surface, forming large ulcers, which had perforated the muscular parietes of the pharynx, in separate spots, one being on each side of the larynx; and they led into masses of purulent matter, which was dispersed between the crico-arytenoidei muscles and adjacent parts, but it had nowhere entered the cavity of the larynx itself: this organ was sound, and only slightly vascular. Below this spot, however, and through the whole course of the bronchi, the mucous membrane was very vascular and covered with thin, bloody lymph. The lungs were gorged, but healthy; the pleuræ were filled with dark serum.

This operation has been performed on several occasions, in this hospital, by means of a curved trocar and canula, which mode presents many advantages in cases where the patient is in the middle period of life, and where there is not much external swelling of the larynx. The wound made by the trocar is exactly filled by the canula, and therefore no hemorrhage can take place, and, even if it did do so, the blood could not run into the trachea, because at each inspiration the air is drawn in through the canula, which adjusts itself close to the wound that its corresponding trocar has made, and not through an open wound into the lungs. Hemorrhage from this latter occurrence has proved fatal in some instances of laryngotomy performed by the knife only.

But a singular exception to the above plan of operation by the trocar, &c., took place a few months ago in the medical wards. There was syphilitic disease of the pharynx and larynx. The latter organ became so distressed as to threaten suffocation. A consultation was called, and it was determined to perform laryngotomy. Mr. Campbell De Morgan, the operator, was desirous of using the trocar, and of cutting down upon the circo-thyroidean ligament for that purpose, but, on his attempting to thrust this instrument through the membrane, it was found so cartilaginous, and partly osseous, that the trocar would not perforate it in the slightest degree, so that this gentleman justly remarked to the class that, if he had not cut down in the first instance upon the larynx, and laid bare the ligament, he might have done serious damage to the organ by repeated useless efforts to thrust in the trocar. However, he judiciously abandoned this instrument, and with the scalpel and bone-knippers removed a large portion of the osseous ligament, and left a free wound for the egress and ingress of air. The case, that of a man nearly sixty years of age, went on remarkably well for two months, when an attack of pneumonia terminated his life. There was found to have existed extensive ulceration of both chordæ vocales and edges of the epiglottis; one ulcer as large as a four-penny-piece was on the laryngeal surface of this part of the organ. There was pneumonia, and tubercular softening of the upper lobe of one lung.

On several other occasions this operation has been performed by means of the trocar, when the patients were, it may be said, lifeless; that is to say, in one instance of a female, especially, she had ceased to breathe. I was called to her at three in the morning, when I found that impending suffocation was terminating her life, I hastened to the house-surgeon, Dr. S. Merriman, who rushed out of bed, and, without coat or waistcoat, came into the ward, drove the trocar and canula through the crico-thyroidean ligament, blew into the larynx, and, though she lay like a corpse, yet, when the air irritated the bronchial surface, a convulsive, deep-drawn respiration instantly followed, another, and another, until the livid, ghastly countenance gradually gave place to a flushed cheek and natural hue. The whole business, from the moment I saw her breathing her last, until the tube was in her larynx, and she was breathing through it, could not have occupied five, or at most seven, minutes. She lived six weeks after this period. The other instance was in that of an Irish labourer, Dec., 1839, who was suffering from syphilitic disease of the larynx, and which threatened to destroy his life by suffocation, when I was hastily summoned to the man, who was dying, and immediately requested Mr. Tomes, the house-surgeon, to use the trocar for the purpose of relieving the larynx. He did so very skilfully. The man instantly whispered, "It is all right now." He never had a single

(a) The imitation of this unnatural laryngeal sound is well produced by a person attempting to make a harsh "caw"-like noise in his own larynx, which is done by throwing the air forcibly upon the arch of the palate, without allowing the vocal cords to vibrate, and is very similar to the "hiss" which a cat will make when at bay with a dog.

(a) From some very judicious observations made by Mr. Shaw, which he founds upon a series of experiments on the living and on the dead subject, this invariable symptom in laryngeal obstruction is, I apprehend, to be referred to the tendinous or cardiac, and therefore the least yielding, portion of the diaphragm.—*Vide* "An Address delivered at the Opening of the Classes of the Medical School at Middlesex Hospital," by Alexander Shaw, Surgeon to the Hospital, and one of the Lecturers. 1845. Walton, Wardour-street.

untoward symptom, and he left the hospital to follow his employment, which he continued to do until the early part of last winter, when he returned to us with all the evidences of rapid tubercular softening in the lungs, and died in the course of three weeks after his admission. The larynx is now in the hospital museum, and exhibits those peculiar warty excrescences on its edges, for which disease so many of these cases have demanded the timely aid of the surgeon.

Whilst treating upon the subject of this operation, I must be allowed to state that the instance above referred to, where Dr. S. Merriman operated, at my urgent solicitation, with the trocar, &c., at a moment's notice, upon a female in the medical wards, was the first case in which this operation had been thus performed in this hospital, and I believe it was equally unknown in other establishments; but since that period the far greater number of cases, requiring this immediate relief, have been most successfully operated on by this simple, efficient, and easily-manageable plan.

Dr. Watson, in his excellent "Lectures on the Practice of Physic," appears to have fallen into a slight mistake respecting the issue of all those cases which have been operated on in this hospital. He classes the adult cases of a chronic nature, for the most part syphilitic in their rise and progress, which have called for the performance of laryngotomy, with those acute and rapidly fatal attacks of laryngitis which have have occurred in children, either from the swallowing of boiling water, from croup, or from laryngitis; and he then draws an inference that the operation was unsuccessful in one half of the number. Now, with all the deference that is due to so eminent a physician, it ought to be considered that these two classes of cases should be no more grouped together, than the chronic diseases of joints requiring amputation, should be coupled with those serious lacerations and compound fractures into joints arising from accident, &c., which, from their alarming nature, demand the immediate use of the knife also. It may be fairly stated, that no one operation of laryngotomy has ever been performed in this hospital during the last sixteen years in which the patient has not been decidedly relieved, and has not subsequently done well; three cases only excepted, out of fourteen instances of chronic disease of the larynx and adjacent parts. Whilst, with these exceptions, they have all survived many months, and even years; the shortest period has been that of four months. But, on the other hand, the instances of an equally large number of cases of laryngotomy performed on children from the above causes, to the amount of twelve or fifteen, over sixteen years, has been unsuccessful; I know not of one single instance where life has been prolonged beyond a few days at the utmost. The question, therefore, of the value of the operation turns upon this point, as I conceive, viz., the chronic disease in the adult, and the acute attack in the young. No unbiassed person can call in question its value in the former, but the propriety of its adoption in the latter class of patients is still a matter of doubt; and unless a clear distinction is drawn between the statistical results of the operation in the class of chronic diseases on the one hand, and in those of an acute nature on the other, no very useful inferences can be drawn for the guidance of the practitioner.

The following table of cases of laryngotomy, performed at various periods upon patients labouring under chronic diseases of the vocal apparatus, will show at one glance the comparative relief and prolongation of life which have followed each operation:—

No.	Sex.	Age	Ward.	Operator.	How Performed.	Character of Disease.	Result.
1	M.	60	Founder's.	Sir C. Bell.	Scalpel only, and removing a portion of cricoid cartilage, leaving a patent wound.	Ulceration of larynx and chordæ vocales.	Recovered; voice nearly restored.
2	F.	46	Seymour's.	Mr. Arnott.	As in No. 1.	A large ulcer in the trachea, near the larynx.	Four months; died at home from another spasmodic seizure of the glottis.
3	M.	45	Clayton's.	Mr. Arnott.	As in No. 1.	Purulent infiltration around the larynx.	Died in nine hours.
4	F.	40	Regent's.	Mr. Arnott.	Trocar and canula.	Ulceration of larynx.	Recovered, and afterwards transported for larceny.
5	F.	46	Handel's.	Dr. Merriman	Do. do.	Do. do. do.	Was seen at the hospital a year after the operation, quite well.
6	F.	50	Whitbread's.	Mr. Arnott.	As in No. 1.	Laryngitis occurring in a case of cancer.	Died in seven hours.
7	M.	16	Founder's.	——	As in No. 1.	Ulceration of larynx. Phthisis.	Four months.
8	M.	10	Do.	Mr. Shaw.	Trocar and canula.	Hypertrophic tonsils pressing on rima glottidis.	Now living.
9	F.	35	Queen's.	Mr. Arnott.	Do. do.	Ulceration of larynx.	Lived three months.
10	F.	53	Bird's.	Mr. Arnott.	Do. do.	Syp. dis. of do.	Now living.
11	M.	37	Pepys.	Mr. Tomes.	Do. do.	Do. do. do.	Seven years.
12	M.	60	Founder's.	Mr. Campbell De Morgan	Ditto, ditto; removing first a portion of osseous circo-thyroidean membrane.	Do. do. do.	Ten weeks, a fistulous communication between pharynx and larynx. Tubercular excavations in lungs; pneumonia.
13	M.	50	Pepys.	Mr. Shaw.	Do. do.	Ulceration of larynx.	Doubtful.
14	F.	4	Seymour's.	Mr. Mayo.	Scalpel only.	Warty excrescences around the rima glottidis.	Blood from the wound rushed, by the deep-drawn inspirations, into the trachea, and the child died from suffocation in a few hours. This unfavourable circumstance is alone a sufficient plea for the use of the trocar and canula. There was pulmonary apoplexy.

It is scarcely necessary to refer to the subject of tracheitis or croup. The disease is well known and easily recognised by a discerning eye; but it cannot be too strongly urged upon the mind of the professional man, that if any ultimate benefit may be anticipated from the operation of laryngotomy in this destructive form of inflammation (and even this is very questionable), the timely use of the knife is of the utmost importance, as the delay of a few hours only may leave the patient beyond the power of all human aid.

Pleurodynia, and spasm of the diaphragm, are sometimes met with in delicate constitutions, or in persons who are habitually of a bilious temperament. If the hepatic biliary system is loaded, and the stomach receives some indigestible food, such as pork, veal, raw vegetables, iced fruits, or wines, &c., a few hours or even immediately after the noxious food has been taken, the patient is suddenly attacked with acute excruciating pain either in the epigastrium, over the short ribs, or around one mamma. The countenance rarely betrays more than negative evidence in such seizures; there is no actual distress depicted in the features, but the patient writhes from side to side, and is afraid to move or respire deeply on account of the aggravation it causes to his sufferings. I know a medical gentleman, formerly a pupil of this hospital, who was attacked with pleurodynia, and unfortunately he was under the hands of a practitioner who did not recognise the distinction between inflammatory pain and mere spasm, and he was made to lose twenty ounces of blood on two separate occasions, without the slightest relief to his sufferings. The pain gradually wore itself out, and I saw him soon after the attack, and could not find the slightest trace of recent pleuritis, by auscultation or otherwise, in his chest. The painful surface could have been covered by a shilling, and was extremely sensitive, so that he could not move in his bed without great distress. A lady, suffering from most violent pain through the mamma to the scapula, was relieved by a full dose of calomel and colocynth, and a purgative saline; but the severity of the pain induced me to auscultate the chest, before I could have ventured to have pronounced the attack purely muscular, and not inflammatory.

The physiognomical characters of pleuritis have been already touched upon, and therefore they do not require further elucidation; but the third division of this class is now to pass under consideration.

REPORT OF THE PHYSICIAN OF THE SMALLPOX AND VACCINATION HOSPITAL, LAID BEFORE THE GENERAL COURT OF GOVERNORS, HELD AT THE HOSPITAL ON FRIDAY, FEB. 4, 1848.

By GEORGE GREGORY, M.D.

A retrospect of the occurrences at the Smallpox Hospital during the year 1847 presents several considerations well worthy of the notice of the governors at a time when their thoughts must naturally be directed to the erection of a new building, which shall be adapted to the present wants of the public and the altered circumstances of the times.

Eighty years have elapsed since the building now in use was erected; during one half of that

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time (1767 to 1807) inoculation was practised; during the other half (1807 to 1847) vaccination has been practised exclusively. It is of the utmost consequence that the governors should now weigh well the influence which vaccination has had upon the character of the disease for the treatment of which this hospital was designed. To illustrate this important point, I beg to lay before the governors a "Table of the Chief Variolous Epidemics which have occurred in London during the last Seventy Years," calculated to show the changes which time has produced on the character of the cases claiming admission into the hospital, with some explanatory observations:—

TABLE OF VARIOLOUS EPIDEMICS IN LONDON.

Years of Epidemic Prevalence	1777	1781	1796	1825	1835	1838	1844	1847
Years of interval between the epidemics	..	4	15	29	10	3	6	3
Total admissions into the Smallpox Hospital	497	646	447	419	401	712	647	461
„ admitted, not having smallpox	..	..	..	7	7	18	4	11
„ „ having smallpox	497	646	447	412	394	694	643	450
„ deaths during the year	125	257	148	120	89	188	151	81
Total admitted "unprotected"	497	646	447	265	250	396	331	170
Deaths in this class	125	257	148	108	82	167	127	64
Rate per cent. in the same	25·3	40	33	40	33	40	38	38
Total admitted after vaccination	..	..	..	147	144	298	312	280
Deaths among the vaccinated	..	..	..	12	7	31	24	17
Rate of mortality in the same	..	..	..	8	5	10	8	6
General rate of mortality (per cent.)	25	40	33	28	22	26½	23½	18
Ratio of those admitted after vaccination to the gross admission (per cent.)	..	..	..	35	36	42	50	61

From this table it will be seen that the admissions into the Smallpox Hospital during the past year amounted to 461. Now, since the opening of the building, in 1767, there have been only seven other occasions where the admissions exceeded 400. These seven years of remarkable epidemic prevalence were 1777, 1781, 1796, 1825, 1835, 1838, and 1844—three in the last century, four in the present. The intervals between these epidemics have been, respectively, four years, fifteen years, twenty-nine years, ten years, six years, and on two recent occasions three years. The governors will hence perceive that the benefits conferred on the public by this hospital are now not simply as great as formerly, but, from the diminishing intervals of epidemic prevalence, have very materially increased.

The table further shows that the average character of the cases admitted has undergone a most important alteration since the year 1780, the rate of mortality having fallen from forty per cent., where we find it in 1781, through the several gradations of thirty-three, twenty-eight, twent-six, twenty-three, and twenty-two per cent., to the low rate of eighteen per cent., which has been the mortality during the past year.

I would next call the special attention of the governors to the obvious cause of these discrepancies—the ratio which subsists between the two classes of cases now admitted into the hospital—namely, the vaccinated and the unvaccinated.

In 1825, when, for the first time after the general adoption of vaccination, smallpox became epidemic in London, the ratio of those admitted after vaccination to the gross admissions was (as the table shows) thirty-five to 100. Ten years afterwards, viz., in 1835, the proportion had advanced from thirty-five to thirty-six per cent. In 1838 it had advanced to forty-two per cent.; in 1844 to fifty per cent.; and in the year just elapsed to no less than sixty-one per cent.: that is to say, considerably more than one half of all those who applied for admission into the Smallpox Hospital during the year 1847 had, in some former period of their lives, and chiefly in infancy, undergone vaccination.

The rate of mortality in this class of patients has always been very moderate. The table shows that on one occasion, viz., in 1838, it reached ten per cent., but on an average of the five epidemics recorded in the table it was only seven per cent. During the past year it was below the average, being only six per cent.; that is to say, out of 280 patients so circumstanced only seventeen died.

The total deaths in 1847 at the hospital amounted to eighty-one. The number of persons admitted without having previously undergone vaccination was 170. Of these, sixty-four died; being at the rate of (very nearly) thirty-eight per cent.

Such are some of the principal facts offered to the consideration of the governors in the accompanying table. It may further be interesting to them to know, that of the 461 persons admitted, 269 were males, 192 females. The greater proportion of the patients were adults in the prime of life. Twenty-nine children were admitted under six years of age. The oldest person admitted was sixty-three years of age. The earliest age at which any one was received having smallpox subsequent to vaccination, was eleven. The oldest person admitted, after prior vaccination, was forty-nine years of age. The earliest age at which any one died, after vaccination in childhood, was sixteen. The oldest person who died, after prior vaccination, was aged forty-one.

The foregoing facts afford much matter for reflection and speculation. Here they are brought forward simply to impress upon the minds of the governors the necessity of providing in the new hospital for a due classification of the several orders of patients now admitted within the walls of the institution. The separation of the severe natural cases from the mild cases occurring after vaccination—the separation of children from adults—is obviously demanded by the altered circumstances of the times. But the necessities of the case extend much further than this: women of disreputable character (affected also by the syphilitic disease) are often received, whom your medical officers would gladly (if the means at their disposal permitted) seclude from the well-behaved women. Clerks in mercantile houses, and others in like circumstances, driven from their lodgings by the alarm of landlords or of fellow-lodgers, are also now admitted in numbers which appear to augment. These persons your medical officers would gladly provide (if they could) with a separate apartment, having such simple furniture and accommodations for dressing as are suitable to this class of the community.

The vaccination department of the hospital appears to increase in public favour. The numbers vaccinated in 1846 were 2783; in 1847 they amounted to 3230. The number of medical practitioners who applied for vaccine lymph in 1846 was 2013; in 1847 they increased to 2166: showing on the two accounts an increase of 600, or twenty-two per cent.

In the month of March last, the Government of Modena applied to this hospital for an effective vaccine lymph, from which to originate a new series of vaccinations in the north of Italy. The request was immediately complied with, and on the 5th of April, a communication from Count Guiseppe Forni, Minister of Public Instruction to the Duke of Modena, informed me of the complete success which had attended the first trials with the new London lymph.

On the 16th of August last, a disease affecting sheep, supposed to be of the same nature as smallpox, broke out in the flocks of Mr. Statham, farmer, of Datchet. This disease had been imported into this country from Toumirgen, a town on the coast of Denmark, by a cargo of Spanish sheep, in the ship Trident. A second cargo, from Hamburgh, brought by the Mountaineer, became affected in like manner on the farm of Mr. B. Weal, of Woodhall, near Pinner. The resemblance of this disease to smallpox is very remarkable, both in symptom, mode of communication, and rate of mortality. The occurrence led to a series of very interesting investigations, chiefly conducted at the Veterinary College, Camden-town, by Mr. J. B. Simonds. The medical officers of this hospital co-operated as far as lay in their power in these inquiries, and Mr. Marson devoted much time and attention to the subject. When fully developed, the investigation can hardly fail to throw some new and valuable light on the history of smallpox, and on the relation which it bears to other diseases, both of man and animals.

31, Weymouth-street, Feb. 3.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF MEDICINE.

Meeting of Feb. 1; M. Royer-Collard in the Chair.

Sale of Leeches.—An official report was read by M. Soubeiran, referring to the propriety of placing some restrictions upon the freedom of the leech trade. The commission recommended that the sale of gorged leeches be strictly interdicted; that the sale of leeches weighing less than two grammes, or more than six grammes, be also forbidden. The reporter was of opinion that during the next six years it would be advisable to prohibit the fishing of leeches, and to oblige the administration of hospitals to preserve the leeches already used in sufficiently large ponds.

M. Richond des Brus was elected corresponding member.

CLINICAL MEDICINE.

Causes of Disease—Albuminous Nephritis. By Professor Chomel.

The division of pathogenic causes into predisposing and accidental has outlived all vicissitudes, all theories, and all systems, because it reposes upon vigorous observation of facts. If, however, you follow attentively the development of disease, you will find that, besides some maladies which appear soon after the action of a given cause, others are due to the slow and progressive agency of the same influence—to the frequent repetition of the cause. Predisposing, therefore, sometimes must be confounded with accidental causes; and the incessant action of the former at last becomes equivalent to the sudden, rapid, and powerful action of the latter.

In order to become convinced of the truth of these remarks, it will be sufficient to glance at the secondary or intervening maladies which occur during the course of chronic disorders. Let us take inflammations as an example. If, at the present day, any fact is fully acquired to science, it is this, that inflammations do not exclusively attack strong constitutions or sanguine temperaments; it is because their cause is not

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exclusively a sudden disturbance of the system, from suppressed perspiration, or other similar circumstances; indeed, inflammations may, perhaps, be said to be more frequent during the progress of chronic diseases, when no appreciable cause of their development can be detected.

It is necessary to illustrate this remark by reminding you of the frequency of acute pleurisy or peritonitis during the last stage of pulmonary consumption, of the erysipelas which sometimes occurs at the close of maladies, of the cutaneous eruptions which are seen at the termination of the serious chronic diseases of children. Inflammatory action can, therefore, find its elements in constitutions debilitated by anterior maladies; and, experience having taught us that these inflammations may for some time remain latent and concealed, it is impossible not to acknowledge that the cause of such inflammations must have been slowly produced, and have gradually been increased from the unceasing action of circumstances inherent to the very nature of the chronic malady the subject is affected with. We will, this day, make the application of the foregoing remarks to a disorder, recently discovered, it is true, but which has, in consequence of the numerous publications it has occasioned, acquired an important place in pathological science—we refer to granular kidney. It is our wish to attract public attention in this country to two points connected with that malady, viz., its connection with pulmonary consumption and with pericarditis.

Case.—On the 30th of December, 1847, a young man, aged twenty-one, was admitted into hospital; his constitution was lymphatic, and a twelvemonth before his admittance he was in perfect health; at that period, having entered as apprentice in the service of a hairdresser, he became subject to frequent coughs and occasional hæmoptysis, which coincided with the fact of his sleeping almost on the floor of a damp room. Since that time his appetite decreased, and diarrhœa set in towards the middle of December; the face and limbs became œdematous, and the patient came to hospital, when albumen was detected in the urine; slight tenderness existed in the right renal region. Nitric acid and sedatives were used without benefit, and death occurred towards the middle of January. On dissection tubercular excavations were found in both lungs; the pericardium was attached by firm adhesions to the whole anterior surface of the heart; the peritoneum presented marks of recent inflammation. The kidneys were hypertrophied; their cortical substance yellow, slightly granular; the pyramids of a dark red colour, and in a state of atrophy.

In this case it seems evident that the disease of the kidneys was consecutive to the pulmonary affection. What is the degree of frequency of the coincidence of consumption and albuminuria? Adding Dr. Gregory's cases with those collected by Dr. Rayer and by Mr. B. Peacock, we find that in 117 instances of granular nephritis, advanced phthisis existed twenty-six times, and crude tubercles in ten subjects, *i.e.*, in nearly one-third of the total number of cases, consumption coincided with albuminuria. Examining the statistics already published on the subject, we find that in albuminuria the heart and liver are diseased in one-third of the patients, and the lungs in two-thirds; in one half of these cases they are tubercular. This proportion is too large to be considered as the mere result of chance coincidence, and must, perforce, induce us to look upon the causes of granular nephritis and of tubercular consumption as very closely connected with each other. Further, in one-sixth of the number of cases of phthisis albuminous nephritis is observed; thus the complication of nephritis, with regard to its frequency, comes immediately after the secondary alterations of the digestive tube and of the larynx, and before the deposits of tubercular matter in the viscera,—deposits which the researches of Louis Lombard and others have shown to be extremely rare after fifteen years of age.

With regard to pericarditis, we will say that Mr. Taylor, in his classification of pericarditis according to its cause, divides cases into two classes. The first consists of subjects in whom the pericardial inflammation occurred during health; the second, of persons who were labouring under chronic disorders. The first class is almost altogether constituted by cases of acute articular rheumatism, and two-thirds of the second refer to albuminous nephritis.

Besides, pericarditis is not the only inflammation which granular kidney has a tendency to occasion; most serous membranes may also be similarly affected under its influence. What is the cause of this general tendency of the system towards inflammatory action during the course of albuminous nephritis? It is not the increase of the fibrine of the blood: is it the presence of urea in that fluid, and the continual losses of serum? To these questions we regret it is not in our power to return a satisfactory answer: we must leave them to be solved by the researches of chemistry and physiology.—*Union Médicale.*

OPERATIVE SURGERY.

Operations performed at intervals (en plusieurs temps). *A Memoir, read by Dr. Vidal (de Casin) to the Academy of Medicine at the Meeting of Jan. 25.*

. . . In my opinion, operative surgery yields too frequently to the ancient rule of "unity of time," and does not sufficiently obey the laws of nature. I intend in this paper to combat the precept of unity of time, and to defend the advantages of a contrary principle—that of operations performed at intervals.

I give this denomination to operations which the surgeon accomplishes in several successive actions, separated by more or less considerable periods of time. No doubt nothing can be more brilliant than the removal in a few minutes of a disease which for years had threatened life; but it also sometimes happens that the sudden and, as it were, instantaneous removal of an ancient malady, to which the system had become almost accustomed, causes a deep disturbance and depression of the constitution, and prevents the possibility of a salutary reaction after the accomplishment of the operation. Besides, in a properly regulated method there are circumstances which can be brought about only by the intervention of Nature. For instance, when a foreign body, engaged deeply in our structures, is eliminated without the interference of art, nature causes successive divisions and cicatrizations by which the foreign body is gradually brought to the skin. Thus, in abscess of the liver, whilst ulceration destroys the walls of the purulent sac, adhesions form between the visceral and parietal layers of the peritoneum, which prevent effusion of pus into its cavity; this synthesis, which cannot be executed by the surgeon, must perforce be confided to Nature, in order to avert a fatal accident. . . . The intervention of Nature is not necessary only in the operations rendered indispensable by disorders which threaten life. Auto-plastic surgery must also have recourse to its resources: the region which requires reparation must be prepared, the substance or portion of skin to be displaced must be brought gradually by slow journeys, as it were, from its present seat to its future destination; in a word, some auto-plastic operations of a dangerous nature may cease to be so, if the principles which I now bring forward be attended to.

I will now endeavour to throw some light upon these principles, and point out their important applications.

1. Extraction of Articular Concretions.—M. Goyrand admitted the principle which I defend, and which I had elsewhere brought forward, when, for the purpose of extracting a loose cartilage from a joint, he completed his operation only when he could rationally suppose the articular wound to have healed. The following was the operative process adopted:—The first part of the operation was accomplished according to the rules of sub-cutaneous operations, the skin being divided at some distance from the spot of the articular capsule which was to be opened, leaving an oblique passage between the wound of the skin and the capsular action. The loose cartilage was then forced out of the articular cavity through the opening of the capsule into the cellular tissue, and fixed there until the wounds were completely healed: thus the cartilage had become an extra-articular foreign body, the definitive removal of which was obtained by a simple operation unattended with peril. A small incision permitted its escape, and in five days the patient was completely restored. It was physically impossible for air to penetrate into the joint: during the first period, the foreign body opposed its passage; and in the second operation, the capsule was completely healed.

2. Bronchotomy.—In order to prevent hemorrhage into the trachea, M. Récamier recommends to divide all the tissues from the skin to the trachea, and to open that tube only twenty-four hours after. But when it is recollected that tracheotomy is almost invariably an operation performed in urgent cases, when time is of the utmost value, this method will justly be abandoned.

D. M'Carthy, D.M.P.

(To be continued.)

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Jan. 26.

J. M. Arnott, Esq., F.R.S., President.

ON INFLAMMATION AND ABSCESS OF THE UTERINE APPENDAGES (OVARIES, FALLOPIAN TUBES, AND CELLULAR TISSUE).

By Henry Benriet, M.D., Physician-Accoucheur to the Western Dispensary.

The author observes, that during the last thirty years the subject of pelvic abscess, considered generally, has been much studied by French pathologists—by Menière, Andral, Grisolle, Marchal de Calvi, &c. In our own country it has received comparatively little attention, if we except the valuable articles of Dr. Doherty and Dr. Churchill, in "The Dublin Medical Journal," and the recent article of Dr. Lever, in "The Guy's Hospital Reports." By all these authors this disease is considered as all but characteristic of the puerperal state, and as very seldom occurring under other circumstances. This, the universal view of the profession, with respect to the pathology of inflammation and abscess of the uterine appendages, the author considers is very far from being a true interpretation of the facts. In reality, the disease is not at all uncommon in the non-puerperal state, only it is not recognised, being confounded either with acute metritis, chronic metritis, iliac abscess, or some other pelvic lesion. The principal difference that exists between the puerperal and non-puerperal forms of inflammation is the following:—In the former, owing, probably, to the increased quantity of fibrine contained in the blood, there is a great tendency to inflammation. Hence, if the structures contained in the lateral ligaments are attacked with inflammation, the tendency of the latter to invade the peritoneal folds themselves, and the surrounding tissues, gives rise to the formation of large pelvic inflammatory tumours, abdominal adhesions, and perforations, often resulting in death. In the non-puerperal state, on the contrary, inflammation of the uterine appendages seldom extends to the peritoneum, and the purulent formations nearly always escape, in a latent manner, by the rectum or vagina. In this form of inflammation of the organs contained within the folds of the lateral ligaments, the element most frequently attacked is the cellular tissue which separates the peritoneal folds, and surrounds the ovaries, round ligaments, and Fallopian tubes. It may be produced by any cause which exaggerates the vitality of the uterine system. The author has seen it occur frequently from ulcerative disease of the cervix, or from a severe fall. The inflammatory tumefaction to which it gives rise may be attended with sufficient swelling to be recognised

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by pressure over the abdominal parietes; but an accurate diagnosis can only be formed by examination *per vaginam*. It may terminate by resolution, but more generally by suppuration, and the discharge of pus by the rectum, vagina, or bladder, or by perforation of the abdominal parietes. When this takes place, however, the disease is not brought to a close, but during a longer or shorter period the patient continues to discharge pus in a latent manner, and to suffer from the symptoms of chronic uterine or pelvic disease. After giving this description of the disease in question, the author briefly alludes to the treatment, which, he observes, must be merely that of phlegmonous inflammation, carried out in accordance with the laws of therapeutics. The length of the paper precluded him from illustrating his account by cases, although he had seen many of great interest. He detailed, however, the heads of one which he had attended during the last year.

THE MEDICAL TIMES.

SATURDAY, FEBRUARY 12, 1848.

A WORD FOR SUNSHINE.

"Stand from between me and the sun."
Diogenes to Alexander.

Lord Morpeth's Public Health Bill, just introduced, has strong claims to the most commiserating attention of our readers. Without our doctorship it is evidently doomed, by inherent want of constitutional stamina, to an early death or moribund life; and cold and unsympathetic must be the medical man who, knowing Lord Morpeth or his intentions, would withhold aid against so undesirable a calamity.

The great and cardinal defect of the measure is its incompleteness. It is a truncated deformity, showing something of promise, but wanting much of the fitness, fulness, and usefulness of matured development. To legislate for public health, and yet omit all reference to the systematic mischief inflicted on public health by large parts of our fiscal administration, is to carry absurdity to its excess. It puts Government in avowed wrong-doing and undoing, and both at a disvantage of principle, policy, and consistency; giving people advice gratis at the same time that it is poisoning them at a heavy profit; and soiling them at one hour for the sake of revenue, while it is cleansing them at another for that of repute.

Passing over the inferior fiscal anomalies which obtain the support of a sanitary Government—omitting even that singular law by which poor people pay Mr. Benjamin Hawes and the Government a fine for carrying about with them a clean face or white shirt—let us be permitted to say one word on that penalty on light and ventilation, silently perpetuated—as we are informed—in the present measure under the shape of "window duties."

To describe the "window tax" tersely—it is a plan for keeping light and air from the population, and stunting them both in their moral and physical development. Have you a house with abundance of apertures for light and air? You are under the ban of Government. If you would spare your income, you must shut out heaven. Hence the closed and painted windows; hence dark rooms; hence passages and rooms to which the light never gets access; and hence the modern architectural deformities by which people, sacrificing appearances to health, and cheating Government into a toleration of ...ily health, struggle—alas! that in a Christian country there should be such a struggle!—to get the sun's rays at a moderate price!

Good sewerage and good drainage are very far from being the substance of sanitary reform. The want of them *may* vitiate the air; but the want of light and air is the *vitiation* itself. With free ventilation all other morbid agencies lose their poisonous character; without it, all changes, however costly, are useless. What the window duties exclude, that is the object of all sanitary legislation to let in; and, if people are to inhale a poisonous atmosphere, it matters but little whether the drainage and sewerage are excellent as laws can make them, or bad as landlords will leave them.

Our profession has here a high duty and heavy responsibility to discharge. It is for us especially to call attention to the monstrous anomaly of which Government, in ignorance, are assuming the paternity. Their fiscal system is permanently undermining the health of a large portion of our industrious people—those people on whose well-being the wealth and strength, no less of the country than of their own families, depend. While it is a part of Government policy that houses in towns shall be ill lit and ill ventilated, there can be no general good health—nor any city exempted from infectious disease. Our mechanics and labourers whose work keeps them within doors, having their health reduced below par, will be ready victims for receiving and extending every malarious influence. They will be slowly shaped to disease's fitness; systematically manufactured into the materials of pestilence; and, perishing under an unwise law, they leave behind them a fatal legacy of suffering, from which no class can keep exempt. The constitution of man, no less than the whole economy of nature, demonstrates but too clearly that He who said "Let there be light!" never contemplated any limitation by acts of Parliament of that "good" which was divinely predicated of it on the morning of creation; and weakness—disease—death are the wide-spread and tragic *indices* that stand everywhere around to admonish legislators, that, if taxation be a necessity, it is a necessity which should not be converted into a rebellion against nature.

The following petition has been forwarded to Viscount Duncan:—

"The Petition of John Murray, Ph. D., of the town of Kingston-upon-Hull,

"Humbly showeth,

"That your petitioner has spent many years of his life in researches on ventilation and disinfection, and, after the most mature deliberation, has arrived at the settled conviction that all sanitary measures must be worthless and unavailing so long as the obnoxious impost on the boon and blessing of light remains unrepealed, aggravated tenfold by the vague and indeterminate definition of the term window. May it, therefore, please your Honourable House to take the question of the window duty into your early consideration, with a view to abolish this cruel and impious tax.

"And your petitioner, as in duty bound, will ever pray. "J. Murray, Ph. D.

"Portland-place, Hull, Feb. 1."

The following petition was also confided to Viscount Duncan, and bore about a hundred signatures;—amongst others, those of Guy, Toynbee, Southwood, Smith, Solby, Barnett, Startin, Smee, Grainger, Waller, &c.:—

"That your petitioners, who, from their professional avocations, are engaged in a daily investigation of the causes of disease, and of the varying mortality of different sections of the population, are deeply impressed with the conviction that the prevention of sickness and preservation of public health are dependent to a great extent upon legislative measures of sanitary precaution, the neglect of which often paralyzes the exertions of the private practitioner.

"That your petitioners believe that in very numerous instances fever might be abated and life prolonged, and the annual mortality greatly diminished, by a vigilant attention on the part of Government to the drainage of unhealthy districts, the abundant supply of water at a cheap rate to the houses of the poor, the light and ventilation of lodging-houses, workshops, and basement floors, and the interment of the dead in suitable cemeteries, removed from the habitations of the living.

"And your petitioners having been led to observe that the defective ventilation of the inferior class of houses in towns, and the gloom and dirt amidst which the poor reside, are often occasioned by the anxiety of occupiers or landlords to avoid the window duties, pray your Honourable House to take into its series consideration the moral as well as physical evils that result from the blocking out of air and light to lessen the pressure of taxation; and your petitioners pray that, if the amount now levied in this form cannot be wholly dispensed with, the system of varying assessments may be changed into that of a fixed burden, in no case exceeding the amount now collected; so that the window duties may cease to operate as a tax upon health, and that no fiscal impediment may remain to the improvement of habitations in respect either of their cheerfulness or perfect ventilation.

"And your petitioners, &c."

GOVERNMENT REMUNERATION OF IRISH MEDICAL PRACTITIONERS.

The misfortunes which have befallen many of the families of Irish medical practitioners, and the strong remonstrances of the press, have not induced the Government to become more liberal in remunerating professional services in Ireland. The Executive seems to have resolved on a certain course, and doggedly pursues it, heedless of the cries of the distressed, or the admonitions of justice. It has determined, we suppose, not to succumb, and hence a false dignity must be maintained, even at the expense of suffering humanity. Yet there are circumstances under which it is more honourable to be conquered than to conquer, and the Irish Government would now win a wreath of laurels by submitting to the just demands of medical practitioners. Had these gentlemen been animated by a mercenary spirit—had their duties involved the exercise of little skill, or had they incurred a small amount of danger—it would, perhaps, have been a virtue on the part of Government to have resisted their demands. The duties of the physician, however, are both arduous and perilous, and yet he is *compelled* by the high officers of state, when his aid is required for the sick poor, to exercise his vocation for the pitiable sum of five shillings a day. In its dealings with the other professions the Government acts with a more liberal spirit. The church has been provided with ample funds to reward those who labour for the good of souls; lawyers, when called to fill public situations, have salaries granted them such as are befitting an honourable profession. But in medicine there are no tempting sinecures, though the Irish doctors are daily crowned.

The Government, having fixed the amount of pay, and having refused to hearken to remonstrances, has emphatically declared that the reward is in proportion to the labour and risk incurred. We will, therefore, just glance at a few facts, in order that we may clearly understand how far there is justice in its determination.

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For five shillings per day the Irish medical practitioner has to engage in the most arduous *labours*. The epidemic fever which prevailed last year was of so virulent a character that thousands of the population sickened and died. Famine and poverty, doubtless, called it into existence, and aggravated its severity whenever it was manifested. So rapidly did the fever spread, that the hospitals were speedily filled, and numbers of the sick and dying, unable to obtain admission, were left in the streets and lanes. Every fever-shed which was erected for the reception of the miserable victims of disease was speedily filled, and there was scarcely a cottage in which one or more of the inmates were not suffering from the malady. Fresh attacks were hourly occurring, and to attend large numbers was the duty of the medical practitioners appointed by the Board of Health. Under such circumstances all the energies of mind and body must of necessity have been brought into operation. The day scarcely afforded hours enough for the discharge of the duties of the professional attendants of the sick poor, and hence there was little hope of adding to the sum which the Government allowed by attending persons in circumstances which enabled them to pay for medical skill. It is evident, therefore, that the labour here required must have interfered greatly with private practice, and, as a natural consequence, would affect to a considerable extent the practitioner's income arising from this source. And yet such has been the liberality and justice of the Government, that it has used every means in its power to force Irish physicians and surgeons to accept the most paltry sum for such herculean labours.

In addition to the duty it is necessary to contemplate the danger to which they are exposed. During the past year one hundred and seventy-eight Irish medical practitioners have died—seventy-one from attendance on fever cases; thirty-four from hospital duties; forty-eight from attending the poor in bleak and thinly-populated districts; and forty-six from causes not specified. The per centage is truly appalling when we consider that the number of medical practitioners in Ireland, according to the statement of Drs. Cusack and Stokes, in "The Dublin Quarterly Journal," is only 2622. In an excellent article by these gentlemen, in the last number of that publication, on the mortality of Irish medical practitioners, the following deductions are drawn from the inquiries instituted:—

"1. That the physicians and surgeons of Ireland are, by their profession, more exposed to the influence of fatal diseases than any other class of the community of a similar grade; and that they are at all times liable to these influences.

"2. That few, if any, of the medical profession in Ireland escape typhus fever; that many have had it twice, and several three times.

"3. That the fevers of medical men in Ireland are almost always of a bad character, even when the epidemic is not of the worst kind; and that, consequently, fever has proved more fatal to medical men than to any other class of the community of a similar grade in this country.

"4. That the fevers and other infectious diseases, from which our profession suffers so severely, are generally contracted in discharge of public duties, either in attendance upon sanitary institutions, or in the miserable, ill-ventilated, and dirty dwellings of the poor.

"5. That, according to our returns received for the period prior to 1843—undoubtedly deficient—568 out of 1220 practitioners, in charge of medical institutions, suffered from typhus fever; of these twenty-eight had fever twice, and nine three times; and that of the whole number three hundred, or one-fourth, died.

"6. That the calculations contained in the papers which we have now laid before the public show that of 743 deaths of medical men, of which we possess the particulars, 331 were caused by typhus fever, or 1 in every 2·24;—nearly forty-five per cent. of the whole.

"7. That, during the prevalence of the late epidemic, 500 Irish medical men, at the lowest computation, suffered from fever or other epidemic diseases, contracted for the most part in discharge of public duties, by which themselves and their families have suffered considerable loss.

"8. That about one-fifteenth of the entire medical community of Ireland have died during the year 1847.

"9. That during the continuance of an attack of fever, and in cases of recovery for a long period subsequent to it, the families of medical men are deprived of their exertions—usually their only means of support."

Such are the dangers to which the health, property, and life of medical men are exposed in Ireland, in attending upon the sick; and yet the Government would *force* them to incur all these for a crown a day. We say "*would force*," because it has used certain threats which would be carried into execution did not the rebellious succumb. We mistake the character of our medical brethren on the other side of the water, however, if they are easily brought into subjection by the Board of Health. Their cause is one of justice and humanity, and will, if not abandoned by themselves, at last triumph. In a country where so many causes are in operation to shorten the lives of medical practitioners, the Government must, if the honour and usefulness of the profession are to be maintained, provide a fair remuneration for the services of its members in its employ, and make some provision for their widows and orphans. We earnestly counsel the medical members of the Board of Health, therefore, to advocate forthwith such measures, or they may rest assured that greater disgrace yet awaits them than that which they have hitherto experienced.

PARTNERSHIPS BETWEEN SURGEONS AND DRUGGISTS.

The honour and respectability of the profession require that the illegitimate and empirical alliances between surgeons and druggists, and physicians and druggists, should be put down by the strong hand of the law.

The increase of the practice, and the assurance with which it is avowed, are additional reasons for intervention. Only a few days ago, the papers contained the *formal* announcement of the dissolution of partnership between a surgeon and druggist; and, though this kind of avowal may not be very frequent, the practice itself is far too general.

If a barrister and attorney were to unite in this way—a kind of lion-and-jackal league—we know what would be the result. The attorney's name would disappear from the rolls, and the barrister would be disbarred.

The Council of the College of Surgeons have similar powers, and we understand that they will be stringently exercised wherever a clear case can be established. Of what use, in any sense, can be attempts like those of Sir James Clark, when any druggist can have in his back parlour as scientific a practitioner as the court physician, giving advice on which his profit is to be one farthing or halfpenny on each pill ordered? Or of what avail our protests against quack operations and quack advertisements, if surgeons may, by contract, establish themselves in the same shop with a druggist, to be in the way of luring a chance customer into the dangers of patientship? These things must be done away with.

IMPERMEABLE PILINE.

We have hitherto, from perhaps over-caution, refrained from alluding to the materials introduced some fifteen months since by Mr. Markwick; but the favourable opinion we at first formed of them is daily becoming so strongly confirmed, that we feel bound to perform a duty, which as editors of a public journal, as editors of the *Medical Times*, we consider we owe not merely to Mr. Markwick, but to the profession at large, by at once directing attention to them.

An *effectual*, *cleanly*, and *convenient* mode of poulticing has been a great desideratum from the very commencement of the science of medicine. An article, therefore, capable of fully effecting this object must be hailed as a very valuable acquisition to our list of therapeutic agents. Such, indeed, is the APONGIO PILINE, the advantages of which, however, are too numerous to mention; suffice it to say, that it has proved more beneficial, more economical, and of more extensive application than any of the remedies it is intended to supersede.

The IMPERMEABLE PILINE, in our opinion, is by no means a less useful invention, and may be very advantageously had recourse to in numerous cases. In a word, we congratulate the profession on possessing materials which afford greater benefits, and without the objections and inconveniencies attending the employment of common cataplasms, &c.

CHLOROFORM IN PUERPERAL CONVULSIONS.

By ANTHONY C. CLIFTON, Esq., Welwyn, Herts.

I was summoned at one o'clock on Saturday morning (the 29th of last month) to Mrs. T., who was in labour with her second child, her first having been born about eight years before.

On my arrival I found the os uteri dilated to about the size of a shilling, and very rigid; pains regular at intervals of fifteen or twenty minutes. Three o'clock a m., os uteri about the size of half-a-crown, still rigid, and very unyielding; progressed slowly until half-past ten o'clock, when I received a summons to the bedroom, the nurse stating Mrs. T. was in hysterics. I then found her in convulsions. The os uteri being pretty fully dilated, I directly ruptured the membranes, hoping to give relief; but the next pain was attended with a most severe convulsion, partaking of the character of apoplexy. I then bled her to the extent of eighteen or twenty ounces; this gave relief for the next two or three pains. The convulsions then returned with, if possible, still more severity; my friend Mr. Thomas, of Hatfield (who had been summoned), suggested the propriety of administering 3ss. of secale, and using the chloroform; the pulse and great prostration not justifying further depletion, the countenance at this time exhibiting great anxiety and depression. Having used the chloroform, in less than half a minute the patient sank into a most tranquil sleep; labour-pains still continuing at regular intervals, she was safely delivered of a living male child, having been under the influence of chloroform forty-five minutes without any recurrence of the convulsions.

Feb. 3. Mrs. T. has progressed most favourably since her confinement.

It is a curious circumstance that Mr. T.'s first wife died of puerperal convulsions, and also his present wife's sister.

GOSSIP OF THE WEEK.

New Hospital at Cheltenham.—The foundation-stone of a new hospital for the reception of 120 patients was laid by Lord Dunally, on Tuesday, Jan. 25.

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MR. SYME'S APPOINTMENT.—Mr. Syme delivered, on the 3rd of February, his valedictory lectures in the Edinburgh Infirmary, previous to leaving for London. He stated that his principal reason for accepting a clinical chair in University Hospital was a persuasion that he would be able fully to carry out his plans for the relief of the sick poor, and for the instruction of the student. In concluding he touched briefly, but pointedly, on the difficulties thrown in the way of surgical teaching in Edinburgh.

SCOTTISH POOR-LAW.—IMPORTANT DECISION.—Dr. J. B. Hay, one of the suspended district-surgeons of the city of Glasgow, has successfully sued the parochial board for the amount of his quarter's salary. The board, some time ago, suspended Drs. Hay, Paterson, and others, in a most disgraceful manner; and, the board of supervision having declined to interfere, Dr. Hay was obliged to proceed against the parochial board by summoning them in the Sheriff's Court. The sheriff, after hearing both sides, decided that, the engagement being for six years, the parochial board had no right to dismiss a surgeon unless for gross dereliction of duty, which was not even pretended in the present case. He, therefore, decided against the board, and in favour of Dr. Hay.

NICETIES OF LAW.—A young woman of Nedenheim, in Belgium, being in the family way, and feeling herself ill, sought the advice of a physician, who ordered his servant to bleed her. After some hours symptoms of cerebral congestion occurred. The consolations of religion were sought for the young woman, and a priest went to her house. Some minutes after her death he performed the Cesarian operation with a common house-knife, and extracted the child, which lived long enough to receive the rite of baptism. These facts were made known to the procurer du roi, and his instructious sought thereon. The servant of the physician was arranged before the correctional tribunal of Tongres, on the charge of illegally exercising the healing art. As regards the priest, it was decided that the operation performed by him after the death of the patient was neither a crime nor a fault, and was, therefore, dismissed without fine, while the servant for performing the simple operation of bleeding was punished.

SOIREE AT THE COLLEGE OF PHYSICIANS.—On Wednesday evening the College of Physicians gave their annual *soirée*, which was very numerously and brilliantly attended, the Earl of Clarendon having been present. Some interesting papers were read.

OBITUARY.—On the 5th inst., after a long affliction, in the 23rd year of his age, Mr. Frederick Horace Ransom, surgeon, third son of Robert Ransom, Esq., solicitor, Sudbury, Suffolk.—On Jan. 1, at Fintona, of fever, Andrew Allen, Esq., late surgeon, Royal Navy.—On Jan. 9, of fever, Samuel Edward Barnes, Esq., surgeon to the Ballymore Eustace Dispensary.—On Jan. 11, at Kilrea, aged 34, of fever, John Chaine Hunter, Esq., surgeon to the Tamlaght Dispensary.—On Jan. 23, of fever, Charles Hyndman, Esq., M.B., physician to the Sick-poor Institution, Meath-street, Dublin.—On Jan. 27, of fever, Richard Strong Sargent, M.D., physician to the North Dublin Union Fever Sheds.

NOTICE.

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MORTALITY TABLE.

For the Week ending Saturday, Feb. 5, 1848.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1478	1107
SPECIFIED CAUSES...	1476	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases	364	184
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	45	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	136	138
Diseases of the Lungs, and of the other Organs of Respiration	362	225
Diseases of the Heart and Blood-vessels.....	50	39
Diseases of the Stomach, Liver, and other organs of Digestion	72	62
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TO CORRESPONDENTS.

TO CONTRIBUTORS.—We must crave indulgence from several gentlemen whose communications are unavoidably postponed. Our appeal will be the more readily responded to on a glance at the length and value of the original papers this week published, from Mr. Guthrie, Professor Andral, Mr. Wardrop, Dr. Rigby, Dr. Simpson, Dr. Gregory, Mr. Corie, and the Army Medical Department. We would particularly direct attention to the importance of the latter document.

"An Observer."—The statements have been fully substantiated before a proper tribunal, and the issue is not doubtful.

"Botanicus."—The plants of the genus referred to grow in South America and the West Indies.

"Mr. Wm. Thomas, Holywell."—We are sorry that we cannot comply with the wishes of our correspondent. The reasons will be stated in a private communication.

"Mr. E. Stammers."—1. In the metropolis there are some good chemical teachers, and opportunities are afforded for a student to become a good manipulator. 2. Apparatus are not very expensive. 3. Write to the editor of the *Pharmaceutical Times*.

"Sigma."—The Apothecaries' licence and the diploma of the College must be obtained before a candidate is eligible for an appointment.

"Bridgenorth."—1. The fees are £56. 17s. for the licence in London; the extra licence costs £17. 9s. 2. The president of the College has the power of recommending a physician to Christ Church, St. Thomas's, and St. Bartholomew's Hospitals.

"Mr. T. M——."—We cannot interfere in the quarrels of rival practitioners.

"Adolescens" writes us as follows:—"Having a great desire to become a member of the medical profession, I have been studying closely for the last two years the Latin Pharmacopœia of the College of Physicians, and 'Celsus de Medicina.' I have, however, only one hundred pounds which I can command, and am somewhat doubtful whether this will be sufficient to defray my expenses in walking the hospitals. I should be glad, therefore, if you would kindly inform me what I am to do." We would advise our correspondent to turn his attention to some other subject.

"Pharmacien."—The following process will be found to answer very well:—Digest the root first in ether and then in alcohol. Evaporate the alcoholic infusion to dryness, redissolve in water, and drop in acetate of lead. Wash the precipitate, and then, diffusing it in water, decompose by a current of sulphuretted hydrogen gas. Evaporate the clear solution till a film is seen on the surface of the liquid, and then set aside that it may crystallize.

"A Student of St. George's" cannot do better than provide himself with the work of Chelius, translated by South.

"Novus Homo."—The Faculty of Physicians and Surgeons of Glasgow have authority only over four counties. Their diploma does not confer a right to practise the medical profession in England and Wales.

"Mr. Edward Sanders."—The work is out of print, but may occasionally be met with at some of the booksellers in town. The price we do not know.

"A Licentiate of 1834."—A list of the licentiates may be obtained of the beadle at the Hall, on application, where our correspondent can ascertain if the person mentioned is "authorized to practise." We have no time to spare for such a work.

"Delta."—The school is recognised both by College and Hall, and we believe that the teachers are efficient.

"An Old Correspondent, Reading"—The first medical practitioner is entitled to attend the patient.

"M. D., Edinburgh," is thanked for his offer, which we accept.

"B. B."—The sum cannot be recovered in a court of law, as a physician's fee is honorary.

"R. H."—The case being purely surgical, a fair sum for work and labour done can be obtained in the County Court.

"J. J. G." asks, "The Apothecaries' Act having come into operation Aug. 1, 1815, can a person, who had not attained the age of twenty-one until the November following, be considered, by law, entitled to practise as an apothecary at the present time?" We think not.

"A Subscriber," who asks us for the "best receipt of a liquid for dying the hair of a dark brown colour," had better apply to the Editor of the *Pharmaceutical Times*.

"A Subscriber, London."—The German degree of doctor of medicine does not qualify the possessor for English medical practice.

"A Licentiate of the London College of Physicians" is not expected to act as his own apothecary, nor does he do so. A physician, when called to attend a patient, usually receives his fee at the time, which is an *honorarium*. A medical practitioner who prescribes and dispenses his own medicine is liable to a prosecution if he does not possess the Apothecaries' licence.

"Dr. Rich. de Gumbleton Daunt, Campinos, Brazil."—We have received the two communications.

"Esculapius," "On Medical Reform," shall appear next week.

"Mr. Haynes Walton's" paper, "On Adherent Iris," will appear in an early number.

Can "W. G." be serious?

"A Member" should address his letter to Dr. Steeten, Worcester. It is unnecessary to revive the question in our columns.

The letter of "Mr. T. B. H.," "On Sanitary Reform," is too diffuse for publication.

Will "M. D., Southampton," authenticate his complaint against the local authorities?

"D. H., Bristol."—The duties of coroners are now much more defined than formerly, and the summoning the absent surgeon, in the case mentioned, is certainly not one of them.

"A Pupil."—We know of no book so suited to our correspondent as South's edition of "Chelius." While very low-priced, it is the best and most complete system of surgery in our language.

POOR-LAW MEDICAL REFORM.—Several important documents in reference to this subject are unavoidably postponed to our next number.

Letters and communications have also been received from An Observer; Botanicus; Mr. Wm. Thomas, Holywell; Mr. E. Stammers; Sigma; Bridgenorth; Mr. T. M——; Adolescens; Pharmacien; A Student of St. George's; Novus Homo; Mr. Edward Sanders; A Member of the National Institute; A Licentiate of 1834; Delta; An Old Correspondent, Reading; M.D., Edinburgh; An Assistant Surgeon, R.N.; B. B.; R. H.; J. J. G.; A Subscriber; A Subscriber, London; A Licentiate of the London College of Physicians; Dr. Rich. de Gumbleton Daunt, Campinos, Brazil; Esculapius; Mr. Haynes Walton; A Member; Mr. T. B. H.; M. D., Southampton; D. H., Bristol; A Pupil; Dr. Henderson; Mr. Steele, Abergavenny; Mr. Storer, Morpath; Mr. Hayden, High Wycombe; Mr. Pennington, Liverpool; Mr. Trull, Leicester; Mr. White, Ballinahinch; Mr. Latter, St. Osyth; Mr. Miller, Knaresworth; Dr. Jones, Chester; Dr. Duncan, Dundee; Mr. Godson, Barnet; Mr. Beedell, Tiverton; Dr. Williams, Caernarvon; Mr. Braid, Manchester; Mr. Whittington, Tuxford; Mr. Thompson, Bideford; Mr. Haldon, Preston; Mr. Allday, Merthyr; Mr. Thetford, Clones; Mr. Parkinson, Liverpool; Mr. Blenkarne, Liverpool; Mr. Stevens, Bedford; Mr. Adkin, Cradley; Mr. Thompson, Ramsgate; Mr. Young, Reading; Mr. Adye, Bradford; Dr. Beadle, Tewkesbury; Mr. Jenkins, Bristol; Mr. Davey, Walmer; Dr. Dalton, Carlisle; Dr. Owen, Beaumaris; Dr. Gardiner, Crieff; Mr. Barry, Cahirciveen; Mr. Cartwright, Dudley; Mr. Ball, Spalding; Dr. Craine, Paris; Mr. Thornhill, Darlaston; Dr. Belcombe, York; Mr. Bagg, Louth; Mr. Sadler, Shardington; Mr. Peck, Newmarket; Mr. Brickwill, Sawbridgeworth; Mr. Evans, Widcombe; Mr. Meore, Bourton-on-the-Water; Mr. Thelwell, Faraden; Mr. Mendey, Olveston; Mr. Mason, Burton-on-Trent; Mr. Conway, Bury; Mr. Alsop, Uttoxeter; Dr. Saunders, Southsea; Mr. Atkinson, Kilham; Mr. Overton, Castle Rising; Mr. Lovett, Royston; Mr. Clifton, Welwyn; Mr. Barker, Hungerford; Dr. Harcourt, Chertsey; Mr. Frame, Comber; Mr. Bramwell, North Shields; Mr. Robinson, Over; Dr. Drysdale, Liverpool; Mr. Hardman, Eckington; Mr. Spencer, Aylesbury; Mr. Arnison, Haydon-bridge; Mr. Souther, Cambridge; Mr. Kersey, Sittlebourne; Mr. Dalglish, Bedale; Mr. Niblett, Bury; Mr. Irving, Lockerby; Mr. Curtis, Alton; Dr. Smith, Patrington; Mr. Waddell, Bristol; Dr. Farrar, Bradford; Dr. Hutchinson, Spiddalls; Mr. Tiffen, Wigton; Mr. Gossling, Rosereath; Mr. Wales, Ferrybridge; Mr. Howden, Fleetwood; Mr. Holttam, Canterbury; Dr. Hall, Eastbourne; Mr. Langton, Southfleet; Mr. Duckworth, Addingham; Mr. Latham, Sandbach; Mr. Godfrey, Turvey; Mr. Lane, Sibsley; Mr. Snowden, Ramsgate; Mr. James, Conway; Mr. Alcock, Birmingham; Mr. Stevenson, Gateshead; Mr. Florance, Portland; Mr. Nott, Bere Regis; Mr. Thornhill, Mountmellick; Mr. Beath, Sheffield; Mr. Broughton, Doncaster; Mr. Radcliffe, Leeds; Mr. Devecy, Ballybogy; Mr. Busby, Leamington; and Mr. Leonard, Bristol.

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No. 438. **SUMMARY.** Feb. 19.

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ORIGINAL LECTURES.

LECTURES ON SOME OF THE MORE IMPORTANT POINTS IN SURGERY.

By G. J. GUTHRIE, Esq., F.R.S.,
Surgeon to the Royal Westminster Ophthalmic Hospital.
Read by Mr. HANCOCK, Surgeon to the Charing-cross Hospital, and Lecturer on Anatomy and Physiology at the Royal Westminster Ophthalmic Hospital.

Lecture III.

ON WOUNDS AND INJURIES OF THE CHEST.

The changes in the structure of the lung from pneumonia, engorgement, hepatization, and purulent infiltration; occurrence and seat of the respiratory murmur during the presence of pleuritic effusion; great necessity for attending to this fact in pistol-shot wounds of the chest; greater frequency of inflammation in the right lung than in the left; treatment of pleuritis and pneumonia; bleeding; practice of Dr. Gregory, and Dr. Rutherford of Edinburgh; aphorism of Laennec; illusory character of the pulse as a guide for bleeding; opinion of Laennec; Mr. Guthrie's early experience of the efficacy of bleeding in pleuro-pneumonia, at Berry Head, and in British North America; directions for bleeding; opinions of the French physicians respecting bleeding in pleuritis and pneumonia; application of leeches; cupping; internal use of tartar-emetic in pneumonia; tolerance of tartar-emetic in large doses; when of doubtful utility; use of mercury in serous inflammations; mode of exhibiting mercury in large and small doses; comparative value of mercury and tartar-emetic; blisters; diet; critical terminations of pneumonia.

The changes which take place in the structure of the lung in pneumonia were first accurately described by Laennec; they have been not less ably investigated by Andral, and commented upon by a host of others of all nations, who have followed in their footsteps, with equal interest and not inferior ability. They are three in number. I. Engorgement, the *engouement* of the French. II. The hepatization of Laennec, the red softening of Andral. III. The purulent infiltration of both. The formation of an abscess or vomica, and the occurrence of gangrene, are so comparatively rare in idiopathic pneumonia, that they may be omitted without inconvenience, as well as chronic disorders of long continuance, or malignant complaints, in the views about to be taken of disease from injury.

I. In engorgement, or the first stage of inflammatory obstruction, the lung has assumed externally a livid red or violet colour. It is heavier and firmer than in its healthy state, and the natural feeling of crepitation, although greatly diminished, is not extinct. The lung retains the impression of the finger, and pits on pressure as if it contained a liquid, although air-bubbles can yet be distinguished in it, and its cellular or spongy texture is still to be observed. On cutting into it a quantity of sanguineous or turbid fluid flows from it, mingled with numerous minute air-bubbles. In some places the colour of the incised surface is darker, and more compact, showing that some progress has been made towards the stage of hepatization. It nevertheless tears with greater facility than in a healthy state, although this is in some measure common to it, when loaded with blood by gravitation without active inflammation. Dr. Henderson, in "The Monthly Journal of Medical Science" for Sept., 1841, was led from the use of the microscope to differ on this point, and to suppose that inflammation could be always distinguished from congestion, as, in inflammation of the air-vesicles, a careful examination of the fluid pressed out of the small bronchial tubes, after washing the cut surface, always showed minute white specks, which under the microscope appeared to be globular, if not granular.

The second stage is the red softening of Andral, the hepatization of Laennec; the latter term being in most common use, from the lung assuming somewhat the appearance of the liver in solidity and weight. It does not crepitate, no air-bubbles pass out of it, but a thick bloody fluid exudes on pressure, and it sinks for the most part in water. The colour is somewhat less red or violet than in the first stage, and lighter and more varied in colour when cut into; the openings of the larger vessels and of the bronchi, when cut across, are observed as white specks, the interlobular tissue is thicker and more marked in lines running in different directions, whilst many little granular points can be discovered, especially with a glass, apparently of a more solid material than the surrounding parts. These granular bodies were supposed by Andral and Laennec to be the air-cells converted into solid grains, by the thickening of their walls, and by the obliteration of their cavities by a concrete fluid. Messrs. Hourman and Dechambre, and Dr. Williams, differ in opinion on this point.

The word solidity, or solidification, is not quite applicable to the lung under any circumstances, although it is sufficiently explanatory in contradistinction to the naturally pervious and crepitating state of that organ. Andral is disposed to believe, and Dr. Stokes to agree in the opinion, that hepatization arises from an excessive congestion of blood, and not from any deposition of lymph. It is not easy, however, to understand, in the present state of our knowledge, how acute inflammation can go on in that part alone for three or more days without secretion and deposition being added to congestion, although the validity or invalidity of the opinion may not be matter of importance. That hepatization, or impermeability to air, may take place in the typhoid pneumonia in twenty-four hours, and that it as suddenly seems to be removed, is hardly conclusive, as it shows merely that a thoroughly well-loaded lung ceases to be permeable to air, until a part of the load shall have been displaced.

When the lung, inflamed to the second stage or that of hepatization, is about to be restored to a state of health, a slight crepitation or crackling begins again to be heard at the end of each inspiration, and as this increases (the rhonchus crepitans redux of Laennec) the bronchial respiration and voice gradually, or after a time, diminish, until they entirely disappear, whilst a mucous râle or rattle commences, the index of that free expectoration by which pneumonia usually terminates.

Dr. Macdonnell, in a paper published in "The Dublin Journal of Medical Science" for Jan., 1845, expresses his doubts, however, of the dry crepitus, heard in pneumonia, being pathognomonic of inflammation, unless accompanied by other symptoms, such as dulness, difficulty of breathing, cough, rust-coloured expectoration, flushed countenance, anxiety, quick pulse, and other febrile symptoms; and he has been led to think so from finding such crepitation or crackling occur on a forced respiration, without any other sign of disease accompanying it, after pleuritic effusion, when the patient was fast recovering, in which case he did not consider it to be a sign of inflammation returning, but of the air-cells of the part becoming permeable to air, although still partly infiltrated by serum, the result of the congestion which had previously taken place, and which crackling passed away without any particular treatment.

The third stage of morbid change is called purulent infiltration. The lung is of a lighter colour from the intermixture of a new matter in its substance, although in the first degree it preserves its firmness and granular structure. The new secretion is of an opaque, straw, or yellow colour, and puriform in its nature. This is discoverable more particularly in spots, but as the disease proceeds, it pervades the whole substance of the lung, which becomes softer and more moist, and is easily broken down by the fingers, the granular structure having disappeared. It is more or less a purulent sort of sponge, in which all of the lung that can be perceived under a strong light may be resolved into small blood-vessels, bronchial tubes, and interlobular septa.

Dr. Henderson thinks that the microscope shows that the grey hepatization, or the third stage, is not so much a stage of true suppuration, as of infiltration with mucus into cells, which have not yet advanced to that purulent condition which they are supposed to attain in the ultimate stage of their mutation, if the inflammation should continue unabated, or the patient live so long.

These three degrees or stages of inflammation may be met with in the same lung, for the most part gradually intermingling one with the other. The lower part of the lung, being ordinarily first affected, is usually the seat of the purulent infiltration of the third stage, whilst in the tubercular affection which ends in phthisis the disease commonly begins in the upper part.

Resolution or recovery from even this, the last of the morbid changes which have been observed, may take place, although it is less likely to do so after idiopathic than traumatic inflammation, in which the lung was previously healthy and the constitution unimpaired.

Laennec thought that when a considerable effusion took place in pleuro-pneumonia, filling

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the posterior part of the chest, when the patient lay on his back, it nevertheless diffused itself over the whole surface of the lung. This has been disputed, particularly by Piorry, Reynaud, and others, and I am satisfied from dissection in cases of wounds, that the fore part of the lung may be applied to the anterior part and sides of the ribs whilst a serous effusion fills the hollow behind, the respiratory murmur being distinctly heard above it. It occurred in the well-known case of Mr. Drummond, killed by M'Naughten; and it is a most important fact to ascertain, particularly in pistol-wounds of the chest, in which the opening is not sufficiently large to allow any fluid effused to run out. Laennec, however, admits that the respiratory murmur can always be heard near the vertebral column, opposite the root of the lung, even when the lungs are so compressed by the effused fluid as to be scarcely discoverable, and that it may be heard below the clavicle when the quantity thrown out is moderate. Whenever it can be heard in these places only, it may be supposed that the quantity effused is considerable; although Laennec believed that the substance of the lung became impervious to air whenever it was compressed to the extent of one-fourth: but that after a time the lung, becoming habituated to this pressure, readmitted the air, and that respiration could be distinguished in places without any diminution of the effusion. Great and sudden effusions usually take place in elderly persons, or in adults of a bad habit and weakly constitution; and whenever they do occur, the defective respiration, which may be even null, is not accompanied by the crepitating râle, which marks under auscultation the first stage of pneumonia. By percussion the resonance is always dull.

With respect to the greater frequency of pneumonia on one side than the other, Lombard has stated, in the "Archives Générales de Médecine" for 1831, that of nine hundred and sixty-eight patients treated with pneumonia, by Messrs. Chomel, Andral, and himself, one hundred and ninety-five had disease in both lungs, two hundred and sixty in the left, and four hundred and thirteen in the right; so that for four hundred and fifty-five attacks on the left, there are six hundred and seventy-three on the right, which he attributes to the great size of the branch of the pulmonary artery sent to the right lung. He considered that pneumonia occurred more frequently in infancy and in old age, than in the middle period of life.

In the treatment of pleuritis and pneumonia, the first and most essential remedy is bleeding, which should be resorted to in every case, whenever the febrile excitement is really inflammatory. All old people under such circumstances, unless in a cachectic state, bear at least one bleeding well; they often bear more. I know no fact more important, and none which my experience has so amply confirmed, in opposition to the opinions commonly entertained on this subject. In young people, the bleeding should be repeated until the desired object is effected; and the quantity required to be drawn in inflammations, particularly after injuries, is often very great. It is almost a question, in some cases, whether the patient shall be allowed to die of the disease, or from loss of blood. Dr. Watson reports in his lectures "that the late Dr. Gregory, of Edinburgh, who had northern constitutions to deal with, was in the habit of, saying, that, provided he was called early to a case of pneumonia, he would be contented to dispense with all other aids than those of a lancet and water-gruel." It was said that "he used to bleed to the verge of convulsions, but that his colleague, Dr. Rutherford, seldom went beyond three bleedings, and generally accomplished his object by two, judiciously timed and regulated. His patients recovered quickly: Dr. Gregory's very slowly." I have some doubts of the accuracy of this statement. Dr. Gregory, perhaps, saved the lives of persons who would have died under Dr. Rutherford; and their recovery was, of course, effected slowly. If it were otherwise, all that can be said is, that Dr. Gregory was a bad practitioner, who repeated his bleedings without paying attention to the presence or absence of those symptoms which rendered them necessary, or their repetition unadvisable. The aphorism of Laennec, on this point, should never be forgotten:—"Convalescence is rapid in proportion as the inflammation is of a small extent, and has been early subdued." As the first stage of pneumonia only lasts from twelve hours to three days before it passes into the second, and the second from one day to three before matter begins to be deposited, no time is to be lost to prevent these evils taking place, if the patient is to be saved without incurring a risk, from which few escape with health, even if life be ultimately saved. Bleeding in inflammation of the pleura, in young and healthy persons, should, therefore, be effected in a very determined manner, and with an unsparing hand, until an impression is made on the system—until the pain and the difficulty of breathing are removed—until the patient can draw a full breath, or faints; and the operation should be repeated, from time to time, every three or four hours, according to the intensity of the recurrence, or the persistence of the essential symptoms. The pulse does not often indicate the extent or severity of the inflammation, although it often expresses the amount of constitutional irritability of the person. It is sometimes exceedingly illusory as a guide, and is never to be depended upon in the earlier stages of disease, when accompanied by pain and great oppression of breathing. In the latter stages, the dicta of Laennec should be strictly attended to. He says:—"Whenever the pulsations of the heart are proportionally much stronger than those of the arteries, we may bleed without fear, and with the certainty of finding the pulse rise; but if the heart and pulse are both weak, the abstraction of blood will almost always occasion complete prostration of strength;" a remark of the greatest practical value, and one which should never be forgotten. In healthy young persons, in the acute stages of disease, a large and successful bloodletting is usually followed by an augmentation of the size of the pulse, and oftentimes by a diminution of its frequency.

In the year 1801, I found myself, not seventeen years of age, in charge of a regiment of infantry, on the top of the Berry Head, the outermost point of Torbay. The men were soon attacked by pneumonia. I had been taught the practice of physic in London—had followed, among other avocations, the late Drs. Rowley and Hooper for three years, and, in consonance with their views, bled my patients three and four times in the first forty-eight hours. I first drew sixteen ounces, then fourteen, then twelve, then abstracted, as the complaint continued, eight ounces; gave tartar-emetic, so as to keep up nausea; then calomel, antimony, and opium, and lost my patients. True also to the precepts I had learned, I examined the bodies of them all, and found that they had lived to what is now called the third stage of pneumonia, combined in almost all with pleuritis, with effusion, and the formation of false membranes. The disease was essentially a pleuro-pneumonia, varying in different degrees, as the pleura or the lungs were principally affected. Discomfited by my failures, I reconsidered every case, and saw that, however systematically I had acted, the disease had not been arrested in any one of them. In fact enough had not been done. Recollecting what I had been told of northern constitutions, and of country practice, I determined that in future, they should die of the bleeding, and not from excess of inflammation. I then took away on each occasion, as much more blood; my sixteen ounces became from twenty to thirty. It would not do. I arrested the rapid course of the disease, but did not effectively subdue it. It was evident that, to succeed, I must place no limit to the abstraction of blood in the first instance, but the decided incapability of bearing its further loss. The men were all young, and in high health; the winds were sharp and cold at night; and smuggled gin was cheap, strong, and plentiful. I, therefore, bled every man when he came into the hospital, until he fainted, and repeated it every four hours, or even oftener, as long as pain or difficulty of breathing remained; and they, sooner or later, all recovered. Every one, however, had taken alarm. Some said I had killed my patients with physic—others, that I was now bleeding them to death; and the officer commanding had determined on writing to London to ask for a better or more experienced doctor—as I afterwards learned—if another death was reported on the following morning. It did not occur, and I soon became in good repute.(a)

The young doctor, as I was called (the two lieutenant-colonels—one the late Lord Frederick Montagu, the other the present Lord Strafford—were only twenty-three and twenty-two), instead of being dismissed, on account of his youth, was declared to be a very useful person—a reputation I carried with me to Portugal in 1808, and which early placed me in that position in the Peninsula which enabled me to avail myself of those opportunities which have led to my now addressing you. The lesson learned at Berry Head was not forgotten during the five subsequent years passed in British North America. The men were as healthy, the winds were sharper and colder, the vicissitudes of all kinds greater. Rum was even cheaper, newer, and stronger than the gin of Torbay. The local inflammations were often as severe, whether of the pleura, or of the lungs, and by no means less so in cases of inflammation of the bowels. One of the first of these I had to treat was in a grenadier, some six feet three inches high, broad and well-framed in proportion; he owned he had drunk a gallon of rum during the afternoon, and very narrowly escaped, even with the loss of nearly as much of his blood, abstracted in a few hours. His first bleeding was into the wash-hand basin, and until he fainted, lying on his back, and the bleedings were repeated as soon as he again began to feel pain. I said to him, you will probably die, but it shall not be from rum or inflammation; and whenever he felt pain he used to put his arm out of bed to have the vein reopened, for Jack Martin was a very gallant fellow. I have given this not as an ordinary but as an extreme case, to be borne in mind under circumstances somewhat similar, and particularly after injuries. In common cases of pleuritis and pneumonia in healthy persons, and particularly in pleuritis, it is now usual in this country to abstract blood, not by definite quantities, but until the pain and the difficulty of breathing are relieved, or fainting is about to take place. The patient should be raised in bed, the opening in the vein should be large, the flow of blood free. The quantity will vary from sixteen ounces to three times that amount in different people; but

(a) Dupont says that Louis, the brightest star of the Royal Academy of Surgery of Paris, in 1743, had so distinguished himself with the army of the Rhine, as to have merited, and obtained, the rank of a surgeon-major at twenty years of age. He distanced me by a year on this point, as I fear he did by more than that on most others. Cheselden publicly taught anatomy at twenty-three; but, unhappily, the brains of men have become so thick since the days of Cheselden and of Louis, that they are now found only fit to have their competency inquired into at the age of twenty-five or six. Alexander von Humboldt says in his "Kosmos"—"The quiet which we (the earth) enjoy is only apparent; the trembhings which still shake the surface in every latitude, and in every species of rock—the progressive elevation of Sweden and the appearance of new islands of eruption—are far from giving us reason to suppose that our planet has reached a period of final repose." It is to be hoped that the changes which may take place in physic and surgery, as well as in our globe, during the next century, may not extend the period of study from five-and-twenty years to thirty, unless another ten years can also be added to the usual term of human existence.

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the important point is to repeat it as soon as the pain or the difficulty in breathing returns. It rarely happens that one bleeding, to whatever extent it may be carried, will suffice to remove the symptoms: and recurrence must be had to this remedy as often as the pain and oppression require it, and the action of the heart will bear it, especially during the first two or three days. It will often be necessary to have recourse to it in smaller quantities for the next four or six days; and again in a less quantity on any return of the inflammatory symptoms. Where the patient is apt to faint, he should be bled in the recumbent position; and, as it is necessary at first to take away a sufficient quantity of blood to relieve the loaded vessels, great care should be taken by arresting the flow of blood for a time, by giving stimulants, by admitting fresh air, and sprinkling with cold water, to prevent syncope, which is sometimes dangerous in elderly persons, who may be subject to, and who are not readily recovered from, it. In the second stage of the complaint, profuse and repeated bleedings do not answer so well; they do not remove the evil which has occurred, although they may prevent its increase. Blood should then be drawn in such quantity only as will relieve the action of the heart, restless under its efforts to propel the blood through a hepatized lung. The quickness of pulse, the cough, the difficulty of breathing, must now be aided and relieved by other means; for although the pulse is not a certain indication, on which dependence can be placed in the early stage of this complaint, the breathing generally is; and, as long as the respiration is oppressed, blood should be abstracted, until it becomes manifest that the effect has been to quicken the pulse, whilst it materially diminishes its power.

On the subject of bleeding, there is a marked difference among French physicians. Whilst Laennec and Andral advocate its repeated use, confining the quantity to four or five cups, of four ounces each, twice a day, Louis(a) is less favourable to its employment. He considers its influence to be much less than is commonly supposed; that it will not cut short a pneumonia during the first days of the disease; and that those who are bled in the first four days of the disease are only cured four or five days sooner than those who are bled at a later period:—conclusions which, however correct they may be in the class of patients he had to treat, will certainly lead, if relied upon in cases of wounds of the lung, to the destruction of the individual. The opinions of Louis, supported as they have been by Trousseau, have not maintained their ground in France. They have been stoutly met by Bouillaud, by Jules Pelletan, and others, who acknowledge the influence of bloodletting, not only in cutting short, but even in curing this disease. Bouillaud, whose authority is great in France, gives the following as an example of his mode of proceeding in a moderately severe case: "1st day. Morning sixteen ounces, evening twelve ounces. In the interval twelve ounces to be drawn locally by cupping or leeches. 2nd day. V.S. ad ℥xvj.; local bleeding, if pain continues, by leeches or cupping. 3rd day. If disease permit, another bleeding, although it is usually cut short on this day. 4th day. If the disease should attain to the second stage, another venesection may be resorted to, but it is in general best to abstain from it, and apply a blister. As a general rule, however, the abstraction of blood should not be refrained from until the febrile action is removed or nearly so, until the dyspnœa and the pain have nearly disappeared; and this rule admits of very few exceptions. On the whole, four or five pounds of blood may be drawn in the case supposed above."

A cupped and buffy state of the blood, together with a firm coagulum, is a satisfactory proof of the propriety of bleeding in this stage of the disease; but after the effect of mercury on the system has been produced, it cannot be depended upon with the same degree of certainty as a sign of power. When the propriety of further venesection is doubtful, the greatest advantage may be obtained from the use of leeches and from cupping, particularly in cases of injury of the chest. Leeches may be applied by tens and twenties at a time; and when they have ceased to bleed into a warm bread-and-water or evaporating poultice, they may be replaced by as many more, until the pain and the oppression have been removed. Cupping is always to be had recourse to when leeches cannot be obtained, and, when well done, it is frequently to be preferred; cupping to sixteen ounces will usually be found equivalent to forty or more leeches. Both these means often relieve to a greater extent, with less general depression, than the smaller quantity of blood taken from the arm, and are, therefore, at such times more advisable. When blood cannot be obtained from the veins, the arteries must furnish it, and I have often opened both temporal arteries with the best effect, when blood could not be obtained from the arm, or readily from the external jugular vein.

The effects of bleeding were of old found to be different under different circumstances and in different climates. Asclepiades remarks that, whilst phlebotomy was fatal at Rome and at Athens, it was beneficial in the Hellespont. Nevertheless, at a much later period, Baglivi says, "In Romano, phlebotomia est princeps remedium in pleuritide."

The internal remedy first to be administered, and most to be depended upon, in the first stage of pneumonia is tartar-emetic. Dr. Rowley always ordered, in my early days of studentship, four grains to be dissolved in sixteen ounces of water; two ounces to be taken every two, four, or six hours, according to the urgency of the complaint, and the effects of the remedy in causing nausea; and I am not aware that I ever treated an inflammation of the lungs without it. The merit of introducing this remedy, however, into practice has been given to Dr. Marryatt, of Bristol, who published in 1790. Rasori, of Genoa, was the first who endeavoured to explain its action when given in a larger quantity, and certainly establish it in general practice on the Continent. Laennec, Andral, and all succeeding writers have borne testimony to its utility. Laennec gave a grain of tartarized antimony every two hours until the patient had taken six grains, when it was omitted for seven or eight hours if the symptoms were not urgent. If, however, the symptoms of disease were distressing, he did not intermit its use, but gradually increased the dose to two grains and a half, until not only the intensity of the symptoms, but of the stethoscopic signs, had been greatly subdued.

As tartar-emetic usually gives rise to vomiting, then purging, and possibly sweating; it should not be omitted, because such effects are produced in the first instance. After a few, perhaps three or four, doses the vomiting usually ceases, the stomach tolerates its introduction, and its gradual increase from six to nine, twelve, twenty, or more grains a day, is often borne not only with impunity, but with great advantage. Vomiting and purging, although often followed by the most beneficial results, are not desirable, as the effects of tartar-emetic are more rapid and more beneficial, when they give rise to no particular evacuations beyond that of general perspiration. The most valuable remark of Laennec(a) on its use, is, "that by bleeding we almost always obtain a diminution of the fever, of the oppression, and of the bloody expectoration, so as to lead the patient and the attendants to believe that recovery is about to take place; after a few hours, however, the unfavourable symptoms return with fresh vigour; and the same scene is renewed often five or six times after as many venesections. On the other hand, I can state that I have never witnessed these renewed attacks under the use of tartar-emetic." He further says that the same favourable results do not occur from its use in pleurisy, or in inflammation of serous membranes, as in pneumonia; and suggests its administration in a slightly aromatic infusion, such as that of the orange leaf, or sweetened emulsion, to render it agreeable to the stomach, or in conjunction with a little syrup of poppies, or a few drops of tincture of opium, when it purges. Dr. Williams recommends a drop of hydrocyanic acid with each dose, for the same purpose.

It is a remedy of doubtful utility when the disease or pneumonia is from the first combined with irritation of the mucous membrane of the bowels, or with general tenderness of the epigastrium, or whole of the abdomen. It is not to be depended upon alone for the cure of pneumonia, not even when combined with small bleedings; and the dicta and the facts of Laennec have been doubted on this point by his brethren. M. Lecoulteulx, aide de clinique in the Hôpital la Charité, and who followed for twenty years the practice of Corvisart Leroux, makes the following remarks on the mortality which took place under the treatment of Laennec:—"I was particularly struck by the very great difference in the mortality of the pneumonias which were treated by large bleedings, when compared with that of those which were treated by tartar-emetic and small bleedings. Incomparably fewer deaths occurred among the former, and the convalescence was much quicker, taking place about the ninth instead of from the fifteenth to the twentieth day." It is probable that the practice of Drs. Gregory and Rutherford, formerly alluded to, might have been better understood, if reference had been had to the mortality as well as to the recovery of any given number of cases indifferently chosen. The sovereign efficacy attributed to tartar-emetic by Laennec and Andral has also been doubted by Pelletan, who, commenting on the practice of Bouillaud at the Charité, and which the latter admits in 1835, says:—"I have not seen this medicine more efficacious when tolerated by the stomach than when it vomited or purged violently, neither have I seen it exert any decidedly advantageous influence on inflammation of the lung, bleeding being, after all, the really heroic means of combating it. Nevertheless, its great utility in lowering inflammatory action cannot be doubted."

Mercury is a remedy of the greatest importance in serous inflammations such as pleuritis, although of less value than tartar-emetic in the first stage of pneumonia, than which it would appear to be more efficient in the latter period of the stages of hepatization and infiltration, though some physicians agree with Laennec, and place entire confidence on its efficacy in all. It is of most value when combined with opium, in which form I have always used it with the greatest advantage. Upon the precise importance or value of each of these remedies there is a difference of opinion, some supposing that the opium merely prevents the irregular action of the mercury, others, as far back as 1801, believing that the opium has a distinct curative effect, being capable when given in large doses of subduing inflammation, and more particularly of allaying pain, relieving the cough and irritation, and of procuring sleep; in which opinion I fully concur. Opium is highly advantageous in irritable and nervous persons, and will frequently relieve the nervous pain, the pleurodynia which remains after pleuritis, when nothing else succeeds. Calomel in large doses is usually preferred to all other forms, but a difference of opinion has here also occurred as to what is a large dose, whether two, three, four, six, ten, or twelve grains are large doses, and whether they should be given every one, two, three, six, or twelve hours. It has been attempted to reconcile this difference of opinion, by supposing that in sthenic or highly inflammatory cases in healthy persons, from three to six and even twelve grains may be given twice or three times a day, with better effect than smaller ones more frequently repeated.

(a) Louis, "Archives Générales de Médecine," livre xlvii.

(a) See Laennec, 4th edition, translated by Dr. Forbes, and the valuable note of the translator, vol. 1, page 244.

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If after bleeding the pain is considerable, whilst the pulse is weakened, twice that quantity or even more may be administered with advantage. Mr. Boyle, a surgeon of the navy, was the first to recommend a dose of twenty grains at night as a sedative. In cases less sthenic or complicated with gastric derangement, the fever assuming more of a general than of an inflammatory character, the excretions being vitiated, the skin dry and hot, and the tongue loaded, from gr. jss. to gr. iij. of calomel, combined with three grains of Dover's powder, may be advantageously given every second or third hour. All, however, agree that the great object is to affect the gums as quickly as possible. This unfortunately is not effected in some cases by any of the quantities given until after a considerable lapse of time, whilst in others it is accomplished by less than half a dozen grains of the remedy. I am not disposed to believe that twenty-four or forty grains given in two or four doses in twenty-four hours will affect the mouth more rapidly than three grains every two hours for the same time, neither am I aware that it is less liable to cause irritation; whilst the third or half a grain of opium given every two hours seems to keep up the effect of that remedy with great advantage. I do not think it signifies much which method is adopted in strong and healthy persons, although the more frequent doses are most satisfactory to all parties when the patient is weak and irritable, whilst the large and less frequent doses often excite great apprehension. It is argued by Drs. Graves and Hudson, of Dublin, that calomel in large doses never causes the dysentery of the severe ptyalism produced by smaller doses; that it acts more quickly, and that, after giving twenty grains and repeating it in six hours, any other medicines may be given without interfering with it, although the strictest attention must be paid to diet, generally confining it to very small sups of warm whey. I regret to say I cannot concur in this opinion without considerable reservation, having lately given to the students at the Ophthalmic Hospital the opportunity of seeing that very serious derangements do follow the exhibition of the large as well as of the small doses, inasmuch as it is impossible to know beforehand what quantity will cause a severe salivation or diarrhœa which it may be difficult to arrest.

I have rubbed mercurial ointment all over the body several times a day in cases of tetanus, without producing any effect whilst the patient lived; this mode of proceeding can only be auxiliary; although the good effect of mercury is often visible before the gums become sore, an object which should always be attained if any symptoms of disease remain.

It may be concluded, that of the two heroic internal remedies, tartar-emetic and calomel, recommended for the cure of inflammation of the chest, tartar-emetic, or tartarized antimony, the antimonii potassio-tartras of the Pharmacopœia of London, is the more appropriate for inflammation of the lungs or pneumonia, provided it is not accompanied by symptoms of gastric inflammation, when its use should be, for a time, superseded by leeches, if necessary, to the epigastrium, and saline aperients, lest the irritation, vomiting, and purging should increase the evil. But care must be taken that one inflammation shall not be allowed to increase, whilst attention is principally paid to the other, and symptoms of irritation, the gastro-enterite of Broussais and the French physicians, are not to be mistaken for gastritis. Mercury, in the form of calomel, or chloride of mercury, is more to be depended upon in inflammation of the serous membrane of the pleura, over which, as well as over inflammation of similar membranes in other parts of the body, it exercises a remarkable influence.

Blisters are never useful during the continuance of acute inflammation of the chest, although their use is indicated when the patient is much exhausted, the pulse weak, and the breathing continues difficult; or in cases in which the disease proceeds slowly, or is becoming chronic, when they often do much good. Continental practitioners apply them as derivatives to distant parts, a practice not usually followed in this country in any stage of acute inflammation of the chest. The same may be said of dry-cupping, mustard poultices, and other cutaneous rubefacients, which often do much good in the commencement and termination of slight attacks, or of their supervention on chronic disease, as after injuries.

In the acute stages simple drinks only should be allowed. As soon as the inflammatory action has subsided, the lightest farinaceous nourishment, gradually augmented by the addition of broths, jellies, eggs, fish, and lastly animal food, should be substituted. The temperature of the room ought to be moderate and equal.

Inflammation of the lungs frequently terminates by the deposition of a white or lateritious sediment in the urine, which is considered a critical evacuation, not, however, to be relied upon, unless accompanied by a remission of the important symptoms. After this urinary deposition, a moderate diarrhœa and profuse perspiration are the most favourable signs of a crisis.

CLINICAL LECTURE ON SOME DISLOCATIONS ATTENDED WITH REMARKABLE CIRCUMSTANCES.

By JOHN F. SOUTH, Esq.,
Surgeon to St. Thomas's Hospital.

VARICOSE SAPHENOUS VEIN CURED BY SPONTANEOUS INFLAMMATION.

Thomas Corlett, aged thirty-seven, sailor, admitted into Isaac's Ward, Jan. 11; a healthy, wiry man. About twenty years ago, whilst at sea, was attacked with severe cramp in the left leg, and shortly after the whole saphena major vein became varicose up to the knee; and at the falciform edge of the fascia lata a soft lump appeared about as large as a pigeon's egg, which could be emptied on slight pressure; and, this being continued, the veins between the lump and the knee swelled and became prominent; but when the pressure was withdrawn, the swelling in the groin returned and the veins ceased to project. He has not suffered material inconvenience till very lately, and did not do anything for the relief of the vein. Last month he was in Edward's Ward for some medical ailment, and, having recovered from it, left the house on Christmas-day. Five days after, the vein, about the middle of the calf, on the inside of the leg, became swollen, inflamed, and hard. A large knot of veins on the inside of the head of the tibia, near the insertion of the ligament of the patella, also swelled to the size of half a goose's egg, became much inflamed, and threatened an abscess. In course of the two or three following days the vein above the knee also swelled and inflamed. For these he applied two leeches twice, and a poultice, which afforded relief; but the inflammation of the vein continued creeping up the thigh, and at last attacked the swelling in the groin, which became hard, and could not be emptied.

When admitted, the whole track of vein from near the ankle upwards, and the swelling in the groin, were much enlarged, firm, and hard, as if the blood had perfectly coagulated in them. There was a little redness over the vein on the calf, also on the head of the tibia, and in patches on the track of the vein in the thigh, and also on the swelling in the groin. The pain, which has not been much, is now subsiding, but there is still tenderness.

He was ordered to keep his bed, and apply an evaporating lotion of water, acetated liquor of ammonia, and spirits of wine, to the leg.

15. By some accident the lotion has not been used. The inflammation has, however, almost entirely subsided, as also the tenderness. The bulk of the veins is diminished, but they are quite hard, and there is certainly no flow of blood through them.

18. The inflammation has entirely subsided, and there is now only a little tenderness above the inner condyle. The bulk of the veins still diminishes, and now scarcely anything is to be observed in the thigh, though with painstaking the track of the vein can still be felt. The lump in the groin is also smaller.

24. Tenderness entirely subsided, and the hardened track of the vein scarcely to be felt; the swelling in the groin less.

31. The absorption of the clot in the vein seems now complete; with some difficulty the course of the vessel may be traced; there is not, however, any hardness, and it does not seem to contain any fluid; probably, therefore, its tube is obliterated; the lump in the groin is scarcely perceptible to the eye or to the touch.

Feb. 1. Went out cured.

REMARKS.

This is a very interesting and, to me at least, a very remarkable case; for although such, not very numerous indeed, are reported, I had never seen its like. I should be very little worthy of trust, did I claim any credit for its successful issue, as I did nothing except abstaining from interference with the constitutional processes going on, and by which the cure was effected. The *vis medicatrix naturæ*, as in this case it may be most truly called, was the sole agent, and, if you please, I was a humble "waiter on Providence," and I trust not an unobservant one. I did not attempt to meddle, I only watched; and the result was at least as satisfactory, if not more so than any treatment I might have adopted would probably have been. The case teaches those engaged in the healing art, that most important lesson, too often forgotten, that they should consider themselves as aids to Nature, and be well content with such service, rather than to endeavour to drive her, according to some crude notion or other they may have taken up without full consideration of the circumstances of the case.

In the history of this case there does not at first sight appear any sufficient reason for the obstruction of the flow of blood through the veins of the leg. Had the patient been a female in a pregnant state, the pressure of the teeming womb upon the brim of the pelvis might have hindered the passage of the blood from the lower limbs into the vena cava inferior; or had there been glandular enlargement within the pelvis or at the groin, such obstruction might have happened. But, as the patient was a male, the former could not have occurred, and of the latter there was not any evidence.

There remained then only two other possible causes: one, a yielding condition of the coats of the vein—a condition which, in reference to the whole vein, I very much doubt under any circumstances; the other, an obstruction from some temporary cause which might or might not be sufficient to delay, or even prevent, the return of the blood through the veins of the leg, and which, as the superficial veins have less support than the deep-seated femoral vein, would gorge them with blood, perhaps burst their internal lining coat, and thus produce the varicose condition. This temporary obstruction could be easily produced by the lodgment of fæculent matter in the sigmoid flexure of the colon. And, although on the present occasion the patient did not mention having suffered inconvenience from this cause, I think it not improbable that there was such obstruction from the collection of the refuse of the hard biscuit, on which sailors are largely fed, in this part of the colon. That such collections do occur in this bowel I am sure, for on repeated occasions I have known a person, after eating Lémann's biscuit, to have on the following day a sense of weight in the left iliac pit, and a continual aching down the fore and inner part of the thigh to the knee, which has not ceased till the intestine had been thoroughly cleared by castor oil. I presume, therefore, that some lodgment of this kind may have in this patient's case been the cause of obstruction to the return of blood through the iliac vein, and the promoter of the varicose state of the superficial veins of the leg.

The occurrence of the soft lump at the falci-

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form edge of the fascia lata is, as far as I have had opportunity of observing, rare. I have seen but a single instance of it besides, in a patient in this house, under the care of my colleague, Mr. Mackmurdo, some two years since. The swelling in that case was about the size of half a pigeon's egg, was considered to be an enlargement of the femoral vein, and occupied the place of femoral rupture, from which, however, there was no difficulty in distinguishing it. In the present instance the swelling was decidedly of the saphenous vein, immediately below its termination in the femoral vein. Whether the subsidence of the swelling depended on its contents being emptied into the femoral vein, and the filling of the track of the vein below resulted from the obstruction of the passage of the blood through it, or whether the swelling of the vein track depended on part of the blood in the swelling in the groin being squeezed from it into the vein, I had no opportunity of ascertaining; but I am rather disposed to believe that the saphenous vein filled in consequence of the obstruction to the discharge of the blood into the femoral vein. It is not, however, matter of consequence as to which was the cause of the loading of the saphenous vein in the first instance; but doubtless the large cistern at the upper end of the vein, which contained as much blood as the whole of the vessel below it, would itself interfere with the free flow of blood from the saphenous into the femoral vein.

Although it might be presumed otherwise, yet it is not very remarkable that an active sailor should have scarcely noticed, and not have suffered inconvenience from, this condition of the superficial veins of his leg for twenty years; for very many persons have varicose veins and suffer little or no inconvenience from them, but go about their ordinary occupations without hindrance, and without resorting to any treatment, unless under exertion, as in lifting heavy weights, or walking a long while and violently, the vein distends greatly, and the weight of the increased quantity of the contained blood bursts its coats and the skin covering it, and a gush of blood ensues, often of large quantity, because, in consequence of the distention, the valves in the vessel do not touch; and, therefore, when the vein gives way, the whole column of blood above it at once drops and flows out through the aperture. This happens when the distended trunk of the vein bursts. But, if the trunk do not burst, the gorging of the vein extends to its minute and capillary branches, and the overloading of these not unfrequently causes their inflammation, which runs on to ulceration—a natural effort to get rid of the additional quantity of blood which has probably coagulated in, and is inconvenient to them; and thus is formed the varicose ulcer—a most troublesome and tedious sore, the dark colour and frequent venous bleeding from which are well-marked signs of its nature and cause. Under either of these conditions, rupture of the vein, or varicose ulcer, the medical attendant who is aware of the cause naturally inquires how long the patient has had the veins varicose, and then, although the reply probably is, that they have been so for many years, the patient is for the first time led to think their existence in this state of any consequence.

Sometimes varicose veins, in consequence of the tardy flow of blood through them, are accompanied with œdema—that is, a collection of serous fluid in the cellular tissue of the limb, by which the skin is distended almost, as it were, to bursting, producing correspondent swelling, which is soft and doughy, so that when the finger is pressed on it a pit is produced by the squeezing aside of the serum, and which does not recover itself till the lapse of some minutes, during which the serum refills the interspaces of the cellular tissue from which it had been pressed.

This œdematous state from varicose veins is, I believe, more frequent in women, not excepting even unmarried women, than in men; and in such cases I suspect the cause of the gorging of the veins is to be referred to the too common negligence of females of all classes to the due and daily relief of their bowels, in consequence of which the fæces collect in the sigmoid flexure of the colon, and, pressing on the iliac vein, interfere with the free return of the blood from the lower limb. Œdematous swelling of the legs may, or may not, be accompanied with ulceration, the cure of which is very troublesome, and the sore, when cured, is continually breaking out again. Sometimes, without any apparent cause, the distended vein inflames here and there, at irregular distances and in patches, which ulcerate, so that there may be a string of little tiresome ulcers from the ankle up the thigh, which are very difficult to get well.

In rare cases, as the present, the whole track of the vein inflames or becomes phlebitic, without running into ulceration. Whether the phlebitis be caused by the blood contained in the vein becoming coagulated, and the coagulated blood fill up the vessel; or whether, from no apparent cause, the blood coagulates in the vein and sets up inflammation in it, is not easy to be decided. Be this as it may, however, the vein is to be felt, or even seen, as a hard and large cord running along the whole length of the leg, and in some cases, as in the present, the neighbouring branches also are swollen, hard, and inflamed.

If after enduring for a time, as in our patient, the inflammation subside without proceeding to abscess or ulceration, then the contained coagulum is glued to the interior of the vein, which consequently becomes obliterated, and the resolution after a time takes place, by which a large quantity, if not indeed all, of the coagulating blood is absorbed, and the vein reacquires its usual size, and with but little additional firmness. This is, indeed, a most happy conclusion, as thereby the disease is entirely cured.

To bring about this result must be the especial object of the treatment, by cooling evaporating washes and the application of leeches, not, according to Brodie, on the track of the vein itself, as if there applied they are likely to cause little troublesome ulcers, but in the immediate neighbourhood, where they answer the same purpose. This inconvenience certainly may occur, but I do not recollect to have observed it, though I have had many opportunities of treating, and seeing treated, cases of phlebitis. It will be necessary also to act freely on the bowels with purgative medicine, and to allay, by antimony or other remedies, any irritative fever which may be induced by the inflammation of the vein.

As regards the case under consideration, there does not appear any cause assignable for the attack of almost the whole extent of the vein with inflammation—at first, indeed, only that portion of it on the leg, and the swelling on the top of the thigh; but very speedily the intermediate portion between the knee and the swelling above was in like manner affected. There was hardness throughout, but the skin covering the track of the vein was only inflamed here and there; yet the inflammation and pain of the swelling below the groin were so great that it was feared an abscess was forming. However, without any assignable cause, for the mere application of two leeches twice, and a poultice, can scarcely be held as having influenced the disease, the inflammation ceased, and resolution followed, and was going on when the patient was admitted into the hospital.

As I at first mentioned, I had little or nothing to do with the treatment; the evaporating lotion I had ordered, by some accident, had not been applied for four days, and then almost all active inflammation had ceased; and the case continued steadily mending till its termination.

It is probable that the cessation of the inflammation must be assigned to his having been compelled by the pain he suffered to leave off his ordinary employment, and to take to his bed, by which the return of blood from the communicating veins was facilitated, and any further distention of the inflamed vein prevented. And, consequently, as he was of a quiet constitution, the exciting irritation having ceased, the diseased process quickly subsided also.

LECTURES ON GENERAL PATHOLOGY,

DELIVERED TO THE

FACULTY OF MEDICINE

DURING THE PRESENT YEAR,

By PROFESSOR ANDRAL.

Reported for the *Medical Times* by D. M'CARTHY, M.D. Paris, &c.

SECOND SERIES. CHAPTER VI.

SEMEIOTIC SIGNS FURNISHED BY THE ORGANS OF SECRETION.

In the first series of these lectures, when studying the alterations of the fluids of the body as elements of disease, we entered into considerable detail relatively to the changes undergone by secreted fluids in the progress of the various maladies; these details we will abstain from repeating; we will at present merely look upon these modifications of secretion as symptoms and signs of morbid manifestations.

The secreted fluids may be divided into two great classes, according as they are merely exhaled from surfaces, or elaborated in glandular organs. Let us first turn our attention towards exhalations.

Section 1. Perspiration, exhaled from the skin, may be modified in its quantity. Glancing at its changes in pyrexiæ, typhoid fever for instance, perspiration is seldom much increased, except, perhaps, in the first stages of the inflammatory form; in proportion as the disease advances the skin becomes more and more dry. In miliary fever and in milk fever, perspiration may be very abundant. Sudor constitutes the third period of the paroxysms of ague, but it may fail to appear; and sometimes, on the other hand, it persists in an inconvenient degree after the intermittent has been arrested, and yields only to change of air and to a tonic regimen. In phlegmasiæ, much variety is observed with respect to the perspiratory function: in general the skin is dry when they are at their height, and moistens when the inflammation begins to yield. In inflammations of serous membranes, perspiration is unusual; it is often very free in pneumonia; and in rheumatism, even when the disease is in its period of status, and should not prevent the use of the lancet, if the symptoms indicate the propriety of venesection. Turning to chronic diseases, we find that the first stages of pulmonary consumption are attended with perspiration when the patient is in a debilitated state; but when excavations have formed, the chest, head, and neck become the habitual seat of abundant perspiration, which usually breaks out towards morning, coincides with feverishness in the evening, varies often with the state of the atmosphere and the progress or arrest of the thoracic disease, sometimes alternating with the occurrence of diarrhœa. What is the cause of these sudoral exhalations? We are not prepared to say that they constitute a vicarious function, supplying imperfect pulmonary exhalation; but we cannot consider them as the mere result of debility, for this reason, that in cancer of the stomach or in other diseases of the digestive organs, in which great weakness is observed, the skin remains dry. In general, however, it is correct to say, that, excepting in plethoric and fat subjects, exaggerated perspiration is a sign of debility. During the last struggles of agony, the skin is often the seat of profuse exhalation, and in convalescence the same symptom is also observed. Perspiration may be local or general, and may be modified in its chemical or physical attributes. The perspiratory fluid is generally acid; when very abundant it may be neutral; but it is never alkaline, except when accidentally mixed with sebaceous matter. In diabetes, in typhoid fever, it has erroneously been stated to be alkaline, but it is always acid. On one or two occasions during the last year, after the exhibition of vapour-baths, we observed its reaction to be alkaline; but the phenomenon has never since then chanced to fall under our notice. The odour of perspiration is slightly acid, as in milk fever; the frequency of fetidity of sudor has been,

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in our opinion, greatly exaggerated, and chiefly depended upon uncleanliness of the patients, or other circumstances equally foreign to the perspiratory secretion. The consistency of the cutaneous exhalation may be watery or viscid; the latter is usually of an unfavourable nature. It may be warm or cold; and when its temperature is low, we are unable to say if its chemical composition is modified.

Exhalations from mucous membranes belong to the semeiotic history of the various systems—digestive, respiratory, &c.—which have already been entered into at length.

Serous membranes exhale fluids, from the examination of which diagnosis may be benefited. When a liquid fills a serous cavity, or the areolæ of the cellular tissue, one of three causes must be admitted to exist, viz., an idiopathic morbid action, an obstacle to the freedom of venous circulation, or an alteration in the composition of the blood. The idiopathic morbid action which has caused serous effusion may be inflammation, and in these cases the fluid usually contains fibrine in small quantities; or the irritation may occupy the neighbourhood of the cavity in which effusion has taken place: thus œdema sometimes follows the application of a mustard poultice, or appears after leeches, or is observed in some forms of erysipelas; in the latter case, it is true, it may be argued that the cutaneous inflammation has more or less interfered with the return of the venous blood to the heart. But these various cases are rare in comparison with those in which inflammation produces in serous cavities deposits of another nature, such as pus, false membranes, &c.; or, again, with those cases in which serous effusions result from obstacles to the venous circulation. Thus, when one limb only becomes œdematous, we should carefully examine its principal vein. When the face is swollen, we have a right to suspect obliteration of the cava descendens; and the infiltration of both inferior extremities points to an obstacle to the passage of the blood through the ascending cava: it is also a sign of disease of the heart; but never indicates hepatic disease nor obliteration of the vena portarum. When this venous duct is obstructed, the serous collection forms in the peritoneum, and thus ascites becomes a sign of affections of the liver and constantly attends cirrhosis. Indeed, in other maladies of the chylopoietic gland, ascites is accidental, and results from gradually increasing pressure upon the vena portæ; at a later period the vena cava also is more or less compressed, and anasarca follows. Enlargement of the spleen produces ascites less frequently than it is usually supposed. In all these cases the dropsy is partial, but it becomes general when the central organ of circulation is diseased. When the heart is primarily affected, the swelling begins in the lower extremities, and thence rises to the body; collections of fluid accumulate in the peritoneal sac. Where congestion of the liver facilitates their production, and after various alternatives of improvement and relapse, the dropsy finally becomes permanent. Serous affections, also, result from changes in composition of the blood: that is, from one peculiar chemical alteration of that fluid, viz., diminution of its albumen. We are not aware of any other modification of the blood which leads to dropsy.

Gases may also be found in the cellular tissue, or in serous cavities; they are seldom, however, produced there, but usually come from other parts. Observation seems to lead to the conclusion that idiopathic emphysema does not exist. M. Louyer-Villermé reports a case in which violent convulsions were followed by spontaneous emphysema. In examining the case, Dr. Landouzy very properly inquires if this result may not be referred to some fissure having suddenly formed in the trachea during convulsion. Dr. Cazalas, of Lyons, observed in 1842 a case of dysentery, in which the neck, body, and superior extremities became distended with air. On dissection no alteration of the respiratory organs was found, except a sub-pleural emphysema; but this circumstance, coupled with the fact that the air penetrated only those parts placed in the vicinity of the thoracic cavity, must still leave us in doubt. The existence of spontaneous emphysema is therefore not demonstrated, and in general it may be traced to a laceration of the lungs or trachea. We purposely omit the cases of wound of the thoracic walls, in which no doubt whatever can be entertained. We once observed a case of phthisis and pneumo-thorax, in which general emphysema occurred; and Dr. Burgrave, of Belgium, relates a case of gastric disease, in which sudden emphysema was noticed. On dissection, adhesions were found to have bound the omentum to the abdominal parietes, and the air had passed from an opening of the softened stomach into the cellular tissue. Exclusive, therefore, of these uncommon cases of emphysema from disease of the digestive tube, it may be said to indicate constantly a communication between the respiratory organs and the cellular tissue of the body.

Gases may also be found in serous cavities—in the pleura, for instance—but never in consequence of mere exhalation; it may have formed from decomposition of purulent deposits within that cavity, after emphysema has opened into the bronchi, or from gangrene of the pleura (Laennec). In the vast majority of cases of pneumo-thorax the air comes from the lung, and it may proceed from various maladies of that viscus: from tubercles or excavations bursting into the pleura, from abscess of the lung ulcerating the serous membrane, from gangrene, from sudden laceration of the pulmonary surface in local apoplexy, and sometimes, perhaps, from emphysema. But consumption and pulmonary gangrene are the two great causes of pneumo-thorax. This accident is not by any means of so fatal a nature as might be supposed; much depends upon the size of the fistulous orifice, the quantity of air admitted into the pleura, and the violence of local inflammation caused by its presence. We have seen in consumption life persist several months after the occurrence of pneumo-thorax; indeed, the fistula may heal, and the air be replaced by fluid, which, in its turn being absorbed, permits the organs to return to their natural condition. In the pericardium gases may be found, but they are usually the result of putrefaction. We know only of one instance in which their presence was recognised during life; it is a case of M. Bricheteau, which we related when studying the signs furnished by the circulation. In the peritoneum we will also deny, until more satisfactory proof has been offered, the existence of essential tympanitis. Peritoneal gases almost invariably have passed from the digestive tube into the serous cavity. In the "Journal des Connaissances Medico-Chirurgicales" for November, 1842, we find a curious case in which, thoracic disease previously existing, sudden and immense abdominal distention was observed. The imminence of suffocation induced the physician to puncture the abdomen, when a large quantity of gas escaped; tympanitis was almost immediately reproduced, and puncture resorted to a second and a third time. The patient died twelve days afterwards. On dissection the peritoneum was found distended with gas, and inflamed; the diaphragm was perforated, and the aperture led to pulmonary cavities resulting from gangrene.

Section 2. We will now examine the alterations of fluids secreted in glandular organs.

Tears may be modified in their quantity by disease. Thus, in some cerebral diseases, in apoplexy, *e. g.*, epiphora is a common symptom; we also meet with it in some varieties of facial neuralgia.

The modification of saliva may bear upon its quantity or composition. This secretion decreases in many disturbances of the nervous system, and even in simple emotion the mouth is observed to be dry. Salivation is usually the sign of a congestive or inflammatory condition of the mucous membrane of the mouth, whether produced spontaneously or by the exhibition of medicine, mercury for instance. Ptyalism may, however, be a primary pathological fact: thus, salivary fluxes have been observed in some women at the beginning of pregnancy, and have occasionally continued throughout gestation. In its composition, saliva is less frequently modified than it is usually believed; in the first series of these lectures we entered into some details on this subject, towards which we can at present cast only a hasty glance. Saliva is naturally alkaline, and we do not believe that it can become acid from disease; the buccal mucus is often acid, and, being mixed with the saliva, has caused the error. But neither in diabetes mellitus, nor in gastritis, have we ever found the salivary secretion acid.

Last winter we laid before you the history of the alterations of bile, examined as elements of disease. This season we again returned to the subject, when treating of the semeiology of the digestive organs. It now remains for us to study one special case connected with the biliary secretion, viz., the passage of bile into the blood, or icterus. Jaundice or icterus appears in two distinct circumstances: in the first place, it may be present, the dejections containing no bile. Icterus is, then, the sign of some impediment to the arrival of bile into the duodenum. This obstruction may consist in inflammation of the ductus choledochus or hepaticus, either idiopathic or consequent upon duodenitis; calculi in these ducts, or tumours, cancer for instance, pressing upon them, may also interfere with the passage of bile into the intestines, and occasion jaundice. After violent emotion, the sudden disturbance of the nervous system may abruptly suspend the hepatic secretion, as it does that of the salivary glands, and be the cause of icterus. In the second place, jaundice may show itself at the same time that bile is found in the dejections. This, for instance, is usually observed in hepatitis. Indeed in hepatic diseases icterus occurs with such irregularity that it is the duty of semeiology to endeavour to assign to this symptom its real diagnostic value. Incidentally it may be met with in all maladies of the liver, hepatitis, cancer, hydatids. In the last-named malady it is not so frequent as in the two former, and it is hardly ever noticed in cirrhosis. Icterus may be symptomatic of acute or chronic duodenal diseases, of perihepatic peritonitis, of diaphragmatic pleurisy, of inflammation of the right lung. It gives in yellow fever a colour to the skin and a name to the fever; in this terrible disease we should, however, say that the livers are not affected as often as it is supposed; in acute cases it is remarkably pale and flaccid. After the introduction into the blood of the venom of some serpents an icteric hue is observed; also in purulent absorption; and finally we meet with it almost invariably during the first week of life, when it is not the sign of any alteration of the liver or digestive organs, but seems merely to be produced by the suddenness with which the liver is called upon to perform a new and important function. The degree of pain experienced by the patient in icterus depends entirely upon its cause; thus distention of the liver, if the peritoneum be affected, will occasion suffering. Intense pain may arise from the presence of calculi in the ductus choledochus or hepaticus; and, singular to say, it is often an intermitting pain, and is, besides, accompanied with other symptoms which constitute hepatic colic. This colic occupies the right hypochondrium, and is attended with nausea, vomiting, extreme anxiety, and a tendency to syncope; the skin grows cold, the pulse small, and the symptoms may disappear by the expulsion of the gall-stone into the intestines, or by the return of the concretion into the gall-bladder. It sometimes happens that these symptoms are so perfectly periodical as to lead almost inevitably to error, and to be attributed to a simple neuralgia of the plexus which surrounds the biliary duct. We committed this error once ourselves, and the mistake was proved by the passage of a large calculus with the fæces.

The volume of the liver may be increased, and the detection of this change may lead to diagnosis of disease. By palpation, for instance, we may sometimes recognise enlargement of the viscus, and its state of roughness or of smoothness;

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It is enlarged and even, in congestion, inflammation, hypertrophy, or fatty degeneration; if palpation detects a tumour on the hepatic surface, that tumour will be even if it be an abscess; or present a special elasticity, and on percussion and auscultation a peculiar tremor, if the swelling be due to hydatids. When the peritoneum has become inflamed around the liver, and false membranes have formed, friction sounds may readily be distinguished on auscultation. Percussion should not be neglected in the examination of these tumours, which never yield a perfectly dull sound when they belong to the stomach. The size of the liver is constantly diminished in cirrhosis. The gall-bladder may form in the right hypochondrium a tumour, of a pyriform shape, usually moveable, and variable in size. The distention of the vesica may result from accumulation of bile, some obstacle existing to the passage of that fluid into the intestine; or calculi may form in the gall-bladder, and, their collision being felt by the hand, may lead to the diagnosis. On auscultation of this region, MM. Barth and Roger, on one occasion, heard a gurgling sound which took place in an accidental cavity of the liver, communicating with the lung.

We now turn to those signs of disease furnished by the urinary apparatus. We described in the first series of these lectures the alterations of urine, and will now only consider them as symptoms of disease. The quantity of the renal secretion may be increased, as in polydipsia—a disease which may be idiopathic, or connected with diabetes mellitus. The urine is diminished, on the contrary, in febrile excitement, and when abundant perspiration is produced; the secretion may be altogether suppressed—a fact chiefly observed in Asiatic cholera. The colour of urine depends in a great measure upon the proportion of water which it contains: if the secretion be scanty, the urine is of a dark-red colour. In anæmia, in chlorosis, the urine is pale, because its solid elements are less abundant; in hysteria, the colourless appearance is remarkable and unexplained. Urine may be coloured by the presence of blood or bile: the blood may have oozed from the urethra, or come from the bladder, resulting either from idiopathic hemorrhage, vesical calculus, or cancerous disorganization. When the blood comes from the kidney it usually indicates the presence of concretions, and sometimes, but rarely, precedes the development of albuminuria. Hæmaturia may finally be symptomatic of a general tendency to hemorrhage—as in scorbutus, purpura, typhus, yellow fever, &c. Bile is found in the urine only when jaundice is present, or a very short time before its appearance. When the greenish colour is not very distinct, it becomes so by the addition of a few drops of nitric acid. The odour of urine is never fetid in disease, except when it has sojourned in a diseased bladder. Some substances communicate a peculiar odour to the secretion, asparagus and turpentine for instance. The taste of urine is sweet only in diabetes mellitus. In all diseases, as well as in health, the urine remains acid or neutral. If the bladder be diseased, or the urine be allowed to remain a long time without being removed, it may acquire an alkaline reaction: thus, in disorders of the spinal chord, in which the bladder is paralyzed, the urine becomes alkaline; but in other maladies this is never the case: even in albuminuria, the renal secretion remains acid. Accidently, during the course of disease, for one or two days, and under the influence of special articles of food, the urine may cease to be acid; but not in any continuous manner, nor for any length of time. During disease, urine may spontaneously, or from the influence of chemical reagents, lose its transparency. Let us examine the deposits in these two different cases.

When the urine becomes spontaneously opaque, the disturbance may be general throughout the fluid, or form at the bottom of the vase sediments and deposits, or assemble in the middle or on the surface in the shape of clouds or smeormata. The latter merely betray the presence of mucus in a healthy or almost healthy state; they are observed in leucorrhœa, in feverishness, and sometimes in health. Troubled urine (urine jumentense) indicates the presence of abundant mucus, or of the acid lithate of ammonia; two circumstances which can be readily distinguished from each other: heat and nitric acid dissolving the lithate, and exercising no action upon mucus. Excess of lithate is observed at the incipient stage of many diseases—in dyspepsia, feverishness, &c. We will now enumerate the various sediments of urine:—1. Uric acid forms a sediment of lozenge crystals, and is characteristic of red gravel. 2. The phosphate of ammonia and magnesia, or phosphate of lime; these substances depose spontaneously in the urine in white gravel, but are thrown off in the bladder when pus is in contact with the urine. It is this triple phosphate which is not unfrequently observed upon the surface of catheters. 3. Lithate of ammonia: white, when in a pure state; pink, when mixed with a certain colouring matter, formerly called rosacic acid, as in cases of intense febrile excitement attended with profuse perspiration, or of cirrhosis accompanied by considerable ascites. This deposit, which dissolves on the addition of nitric acid or the application of moderate heat, was for a long time erroneously looked upon as critical in the course of febrile diseases—an opinion disproved by rigorous observation. 4. Blood may be observed in urine, and its nature is in general readily ascertained. 5. Mucus, when abundant, assembles at the bottom of the vase which contains urine, and indicates vesical catarrh and cystitis. It is not removed by nitric acid, and is very slightly diminished by heat. 6. Pus, when found in urine, always communicates to it an alkaline reaction and an ammoniacal odour. The pus may have originated in the urethra, bladder, or kidneys, or proceed from some abscess which has opened into the urinary cavities. 7. False membranes are sometimes deposited from urine, a fact not uncommon after the application of the emplastrum lyttæ to any part of the skin. 8. The urine may present deposits which attest the presence of cancer in the bladder; and sometimes the urine is altogether replaced by a fetid liquid, a forerunner of a speedily fatal termination. 9. Spermatic matter may be deposited in the renal secretions, but its nature must be tested by the microscope. And, finally, the urine may contain fæces when a morbid communication has accidentally been established between the lower part of the digestive tube and the urinary organs.

All these deposits may spontaneously be formed in the urine; but others may also be obtained artificially, and are of considerable value to the diagnosis. Thus, for instance, lithate of ammonia may exist in urine without being spontaneously deposited. The addition of two or three drops of nitric acid cause the precipitate to form, and a few drops more of the acid dissolve it again. Nitric acid, and heat also, sometimes cause the coagulation of a certain quantity of albumen contained in the renal secretion. If the urine has become alkaline, heat alone, without the previous addition of acid, will be insufficient to cause coagulation of the albumen. Heat occasionally produces the formation of a slight deposit, which disappears with effervescence upon the addition of nitric acid. This deposit is constituted by carbonates; but we do not at present very clearly understand the cause or the mechanism of their formation. The discovery of the accidental presence of albumen in urine is a conquest of modern science; and Dr. Bright established that this fact was always connected with a variety of dropsy in which the kidney is constantly diseased. Whenever for any length of time we have found the urine albuminous, we have always found, also, the kidneys altered in a manner which it is not our present object to examine in its various stages, degrees, and perhaps natures. This albuminous urine is pale and frothy; its specific gravity is much diminished, some of its solid elements—urea, for instance—ceasing to be excreted from the kidneys. In disease of the heart, when the kidneys are the seat of considerable congestion, the urine may also contain albumen in a temporary manner. In all these instances the debility of the patient gradually increases with the daily loss of albumen.

In diabetes mellitus, caustic potass, heat, or milk of lime produces in the urine a brownish deposit, consisting of glucosis, or grape-sugar. According to the quantity of the latter, the colour may vary from a lemon colour to a dark brown. The urine should in the first place be tested by heat, when albumen, if any be present, will be coagulated; after filtration the fluid should be submitted to contact with one of the above-named reagents, which will detect very small quantities of sugar. Frommerz's fluid (potass and tartrate of copper) has also been used for the same purpose, and forms in diabetic urine a precipitate, at first yellow and afterwards red, constituted by protoxide of copper. These various chemical actions should be completed by evaporating the urine to a syrupy consistency, and, by the addition of a ferment, endeavouring to establish alcoholic fermentation. M. Guévenne discovered in diabetic urine the presence of microscopic globules of ferment. In diabetes mellitus, the specific gravity of the urine is always increased, and oscillates between 1022 to 1044, 1018 being the average density of healthy urine. Its colour is usually pale, and its odour feeble, except when boiled, a distinct smell of burned sugar being then produced; when fermented, it exhales the peculiar smell of alcoholic fluids. Its taste is not always very distinct, and one of the best signs of the presence of sugar in the urine is the fact discovered by M. Biot, that it polarizes light to the right side. The observation has been fully confirmed by the researches of Bouchardat and Martin Solon. We should be aware that albumen deviates the rays of light to the left, and, therefore, when the presence of albumen coincides in the urine with that of sugar, the deviations may neutralize each other, and lead to an inaccurate appreciation of the quantity of sugar. It is, therefore, necessary to remove the albumen first, by coagulation and filtration, before the urine be tested by the polarimeter.

In our next lecture we will begin the semeiology of the nervous system.

THE HUNTERIAN ORATION.

This annual address was delivered on Monday last, by R. D. Grainger, Esq., of St. Thomas's Hospital, to a very crowded audience. Sir R. Peel, Sir R. H. Inglis, the Dean of Westminster, and the heads of the medical corporations were present. From the low tone of voice, more particularly remarkable at the close of sentences, which detracted from the effect of Mr. Grainger's otherwise agreeable delivery, much of his meaning was lost to a great proportion of his hearers.

Commencing with a recognition of the circumstances of time and place under which the assembly had met, the orator indicated, at an early stage of his address, the particular direction which his remarks would take. Modestly avoiding an ambitious flight, he preferred to rest on his experience, as a teacher in a large medical school, his title to speak freely upon the past and present state of organic science. He believed that a review of the nature and amount of physiological knowledge, as it existed at the time when he first was called to teach, and of its progress to the present time, would be full of instruction. That progress had not been the work of chance: it had been preceded by a rational cause, and depended on the same laws as did the advancement of human knowledge in every other department. Its degree had been so high that it was surprising to him that it had not attracted greater notice among the educated and the learned. The generalization of the properties and laws of organic nature, within the last ten years, had attained an importance that could only be compared to the determination of the laws of chemical affinity; and that which had been hoped for as the fruits of some centuries of inquiry had been realized within a few years. He might cite, in confirmation, the discoveries of

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nervous connections by Bell, and the theory of cell-formation of Schwann. But not only had the results actually obtained been sufficient of themselves for a subject of felicitation, the mode of investigation had been changed and placed in harmony with that of the other inductive sciences. To appreciate rightly the state of organic science as it existed till within a very short time, it would be necessary to discriminate between what was then positively known, and what dwelt in conjecture and uncertainty; for, unless this distinction was kept in view, the character of its subsequent progress could not be properly estimated. He would say that, in the anatomy and physiology of that period, the most striking feature might be characterized by the term *uncertainty*. Of the ultimate and essential structure of bone, cartilage, nerve, epidermis, and their allied organs, nothing was known positively. The connection of the vascular system and solid tissues, and the question of secretion and absorption, were left in vagueness and doubt, and no useful generalization could be established. The attempts that had been made to question Nature anew, by a process more analogous to the relative unity of the objects of knowledge to the human mind, had been successful in reclaiming the science of the body from speculation and doubt, and of placing it on the same basis as other positive sciences. The triple combination of *design*, *unity*, and *law*, he thought, had not been sufficiently present to the minds of preceding inquirers. It was first necessary to subvert the prevalent belief, that the phenomena of living bodies had something so peculiar and so distinct from those of chemistry and physics as to require a mode of investigation different from that of all other objects of knowledge: a doctrine which had always exerted great influence on the progress of anatomy and physiology. Minute anatomy was unknown, and secondary phenomena gave the laws to the most important functions of life. When the teachers or writers on these subjects felt themselves at a loss, they were contented with urging the necessity of further inquiry, without showing in what way or by what means it was to be prosecuted. Both teachers and pupils were only creeping about in the dark, accumulating facts which, from their diversity and contradictory aspect, only increased the difficulty of arriving at a general law, and strengthened doubts as to the trustworthiness of science. Among the most striking and instructive of the features of the present state of science was the fact that it is no longer proposed to cultivate the knowledge of the human organization by one or two means of research. Nor does the study of the human body alone, nor the aid of the microscope, of chemistry, and of embryology, suffice for the requirements of the present method of prosecuting the sciences of human life and structure. The physiologist is called on to appeal to the general laws of matter, whether organic or not. If it be said there is nothing new in all these methods, it is true, if it is meant that singly these means of knowledge have to some extent been employed; but it would be difficult to point to any age or country where they have before been combined into a system and directed to these purposes. Another important characteristic of modern inquiry was the part assigned to the purer intellectual fuction. Although no one could see more clearly than the orator the importance of emancipating the mind from the bondage of the senses, and that nothing but the strictest questioning of Nature would suffice, yet it was a fact that great promoters of science had almost without exception been industrious observers. Some had, indeed, appeared at long intervals who had seemed to reach great conclusions to some extent, independently of the senses. Harvey saw not with the bodily organ the junctions of veins and arteries on which the doctrine of the circulation is built; but the means of science must be adapted to the course of every-day study, and not to exceptional possibilities. It was by the microscope that those beautiful revelations of minute anatomy had been made on which future physiologists would delight to look back. The anatomy of muscular products exhibiting a fibre composed of two substances, distinct in their constitution and enclosed in different cells, detected in the 18,000th part of an inch, was an achievement of which modern times might be proud. The great principle of the new school of physiology, which is so subversive of those of the former, was, that vascularity is secondary and subordinate, and not essential to organization, and might be dispensed with. It would be vain to attempt any definition of vital forces, and the same difficulty besets the naturalist in this respect. We know as much of vital forces as we do of those we call physical. The views of Hunter on this subject were so much in advance of his age; that it required the lapse of half a century that his views might be appreciated; and now many persons were found to say, that the facts accumulated by Hunter would be valued when his speculations were forgotten. It was precisely on these depreciated speculations, as they were called, or rather as he would term them—those sublime generalizations and laws of vital forces—that the highest claims of Hunter to the veneration of posterity will most abidingly rest. There was no difficulty in comprehending that Hunter had a clear perception of two great truths:—First, that vital forces are possessed by the fluids as well as the solids of the animal body; and second, that these forces are possessed by parts of the body non-vascular. The mere form assumed by matter is not an essential property, though we are accustomed to connect the idea of life rather with a solid than with a fluid. Thus compound matter, water—in its three states of vapour, solid, and fluid—possesses, notwithstanding its change of form, its essential properties unaffected; and the same thing may be said of living substances, as the extended researches of modern physiologists leave no room to doubt. There is now no difficulty in comprehending what Hunter affirms, that the living principle exists in the different parts of the living body, independently of brain or circulation. It would be impossible for any physiologist of the present day to give a more precise expression than Hunter has done, to the fact that organization is essentially independent of vascularity. The first and most obvious fact which strikes an observer in contemplating the phenomena of the living animal is, that everything seems to be peculiar and different from what has been observed in other bodies, inorganic or vegetable bodies; but it soon becomes apparent that the most important functions depend on the laws of chemistry and physics. The living body contains no new elementary substance; and we constantly encounter in the animal economy processes which have their counterpart in the chemist's laboratory. Speaking only of the body, we might say that physics and chemistry supply the forces of life.

After enumerating some of the names most distinguished amongst modern promoters of science, the orator proceeded to notice the deaths of Mr. Liston and Mr. Morgan, as a loss sustained by the profession since the last anniversary. Of the character of the former he read a delineation by Professor Miller, of Edinburgh. Mr. Liston was distinguished by high resolve, indomitable energy, and inborn consciousness of power; and was a zealous enthusiast in his profession. His eye was fine and sharp; his wrist reminded one of Nasmith's steam-hammer, which drives a pile or touches a needle's point with equal aptitude. Professor Miller had never seen it shaken, and did not believe it could have been shaken. His size and strength gave him great advantage in operations. He was particularly fond of instruments, and was always trying to simplify them, believing that the degree of their simplicity was the degree of their utility. Trifles were apt to put him out of temper, but grave accidents only rendered him more calm. He has been seen to rush out of the operating-room to weep and sob, but in the scene of action he never showed the least emotion. Obstructed in the midst of an operation, he never stopped to talk or scratch his head, but in an instant the thing was done. That, for him, was the best move that was accomplished on the spur of the moment. He had great powers of diagnosis and touch: a touch and a glance would do more for him than a whole day's meddling for some practitioners. He had great faith in the *vis medicatrix naturæ*, and would avoid the use of drugs whenever possible. He was firmly set against quackery in all its forms. As a teacher he was neither fluent nor eloquent, but distinct and practical, with great power of gaining the attention of his pupils. Though second to no operator then living, he avoided an operation whenever the welfare of his patient could consist with such a course. He observed in a letter to a friend—"My principal business is to prevent the necessity of operating." Mr. Morgan was a most skilful as well as bold operator, and was distinguished for the attention he bestowed upon *medical surgery*. His writings, which were not numerous, were marked by great clearness and strength. The work on Poisons, undertaken in conjunction with Dr. Addison, contributed much to his fame.

Taking a general retrospect of the subject of his address, the orator drew an argument in demonstration of the existence of a wise Creator, from the delicate arrangements of the human body, more particularly brought to light in the achievements of modern organic science; and concluded an oration of two hours which had been listened to with the most marked attention.

ORIGINAL CONTRIBUTIONS.

CLINICAL NOTES.

No. XI.

By RICHARD DE GUMBLETON DAUNT, Esq., M.D. (Edin.), Member of the Faculty of Physicians of Rio Janeiro; and Member of, and late Honorary Secretary to, the Parisian Medical Society.

"Multum adhuc restat operis, multumque restabit; nec ullo nato post mille sæcula, præcludetur occasio aliqua adhuc adjiciendi."—SENECA, Ep. 64.

In the absence of all accurate statistical information, it is impossible to say *what*, but it is certain that a very large, proportion of the deaths occurring in Brazil between the ages of forty and sixty are owing to chronic diseases of the heart and liver, attended by dropsical swellings. It is of the pathogeny and therapeutic indications of this form of disease that I am now to treat; and, as I believe the same diseased conditions exist more or less in India and the Antilles, I offer what I am about to say to the especial criticism of medical men acquainted with disease in those regions. Nearly the whole body of practitioners in this country regard this disease;—appearing as it does with the following symptoms: anasarca, more or less general; ascites, enlargement and sensibility of the liver, urine high coloured and in diminished quantity; palpitations and tremors of the heart, sometimes with pain; cough, sleeplessness, violent attacks of oppression in the chest, or dyspnœa, occurring chiefly at night; a variety of indescribable painful sensations in the precordial region in a paroxysmal form; that peculiar discoloration of the skin which indicates some other alteration of the hæmatose beyond that of simple anæmia—anorexia: the state of the pulse is variable, and these symptoms do not always exist at the same time, as *ex. gr.*, the dropsical swellings in some cases only appear a few days before death; the cough only when the disturbed thoracic circulation has induced a congested state of the lungs, &c.;—regard this disease, I repeat, as a form of chronic hepatitis, inducing subsequent cardiac derangement, or else as hypertrophy of the heart, or valvular disease, producing the enlarged and sensible liver, as the prior appearance of thoracic or abdominal symptoms may incline their opinion; and the treatment is based on these views, and consists of bloodletting, local and general. Blisters, diuretics, and in the last stage, when the dyspnœa is dreadfully urgent,

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antispasmodics are resorted to by some. Death, however, invariably closes the scene; and all obtained by the above treatment is a palliation of the sufferings of the patient for a few brief days, after which they return, and with apparently increased violence.

From an attentive observation of many such cases, aided by conversations on the subject with my very esteemed and highly-talented friend Dr. John Leslie, an Irish physician, established in Rio de Janeiro, and with Dr. Betoldi, a graduate of Pavia, resident in this province, I have formed the opinion, that in almost all such cases the true pathological condition which requires to be combated is a chronic arteritis. Perhaps I should express my idea better by using the phrase, a gouty subarteritis, caused by the presence of urate of soda and other impurities in the blood; as a result of which, and slowly, a disordered state of the circulation and nutrition of the liver is induced, with a similar state of the heart and a perverted sensibility, or a species of neuralgia of the organic nerves supplied to the heart. Among the facts which favour these views, the most prominent is that the blood of such patients is of a rich dark colour, indicating an excess of fibrine, and the serum presents that peculiar lactescent appearance considered by many physicians as pathognomonic of a general diseased condition of the arterial system, and of the presence of urates. Also, in such persons the insomnia and the distressing sensations in the chest are by no means in constant relation to the degree of organic disease of the heart, nor to be explained by it; and, indeed, the whole state now under consideration is often expressively designated by the laity as an "escandesça," which signifies a general inflamed condition of the body. Very many, too, of those who thus die are of families in whom a gouty diathesis prevails, or have personally suffered from rheumatism, or who by a too sedentary life, or errors of diet and regimen, have fallen into that state which favours the development of gout. Thus, numberless Europeans in the maritime cities, who are notoriously intemperate, have died of such states of disease; and, though the native population is one of the most temperate in the world, yet the highly azotized nature of the chief articles of food in use among them sufficiently explains why they also—fibrine, uric acid, urate of soda, and other impurities, being accumulated in the blood—are so frequently the victims of this distressing malady. On consulting Dr. Sigand's work on Brazil, I find nothing which shows him to have just views on the subject now treated of; but he speaks of a form of hemorrhoidal disease, so called from the evident embarrassment of the abdominal circulation attending it as being very prevalent in Rio; this is also the case in this province, and, in my opinion, it is merely the incipient stage of that disease which, in its more aggravated form, I am now describing. Acting on these views, I abandon entirely the use of general bleeding, and also the application of cupping on the hypocondrium corresponding to the liver, and limit myself to the prescription of the free application of leeches to the hemorrhoidal veins, and application to be repeated according to the degree of embarrassment presumed to exist in the portal circulation. Revulsions I apply, occasionally, when the distressing sensations in the precordial region are so acute as to threaten a suspension of the circulation, and indicate a violent degree of disturbance in the cardiac plexus. When the dropsical collections are great, the most speedily operative diuretics must be had recourse to; and when the most immediately urgent symptoms—or at least that which most alarms the patient (the dropsy)—is dispelled, I begin the administration of those means which appear to me in harmony with my views as to the pathogeny and morbid physiology of the disease, and these are—bleeding from the hemorrhoidal veins as a palliative; the carbonate of iron, the biborate of soda, calomel, cantharides, sulphur, aconite, colchicum, iron, bismuth, the binoxalate of potassa, cyanide of potassium, iodide of potassium, turpentine. The objects to be obtained are to modify the composition of the blood, improve the tone of the organs whose office it is to improve its impurities, produce an hyposthenisant influence on the minuter arteries and capillaries, whose serous tunic is in a morbid state; modify the diseased vitality of the great sympathetic nerve, and especially of the plexus governing the heart's action, &c.; which being accomplished (and in support of the claims to notice of the views and practice now expounded I ought to add that, since I have adopted them, this has been so frequently the case as to justify me in placing them before the profession), then change of air, a milk diet, the use of the watercress as a salad, with decoction of taraxacum, or the Boërhavia hirsuta, and hydrochlorate of ammonia, and a continuance of the use of the lactate of iron and iodide of potassium, is generally sufficient to dissipate, or at least to diminish sufficiently, any amount of chronic engorgement of the liver which remains.

Calomel, in this disease, I exhibit in purgative doses of twelve to eighteen grains, at intervals of some days, with striking relief. It is not, alone, a powerful defibrinator of the blood, but also has a powerful disengorging action on the whole system of the visceral lymphatics. In the small alterative and frequently repeated doses, employed by many in liver disease, I do not in the disease now treated of give it. Cantharides I give in the form of tincture, commencing with one drachm in the day, which is gradually augmented, according to the tolerance, to half an ounce, and continued during tolerance. It has a powerfully sedative action on the heart, causes a copious diuresis of limpid urine, and relieves pulmonary congestion and cough, and regulates organic nervous action. The colchicum I give in large doses with a view to relieve the blood of the uric acid, urate of soda, and other impurities by its specific action, demonstrated in the treatise on Colchicum which we owe to my distinguished friend Dr. Robert Lewins, jun., and, in combination with iron, we have a most energetic agent in radically subduing the inflammatory state of the small arteries and capillaries which gives rise to, and maintains, the whole *sequelæ* of diseased actions. The biborate of soda, the sulphur, the carbonate of soda, all tend in a weaker degree towards the same ends. Bismuth is most valuable when there is disorder of the gastric functions, as often occurs. Aconite, in full doses, is most valuable in relieving the dreadful depression and other sensations which occur in paroxysms, and which in this, as in other forms of heart disease, are only to be explained by the existence of a neurose of some portion of the organic nervous system. Cyanide of potassium, in as large doses as the patient can tolerate, has a similar use. The iodide of potassium is indicated after the first ameliorations have been obtained, and with iron, and occasional doses of colchicum, promotes a return to healthy action of the diseased bloodvessels. Oxalic acid, binoxalate of potassa, naphtha, turpentine, as defibrinators of the blood, and the last also as a great corrector of the secreting and excreting functions, are often invaluable auxiliaries in the course of treatment.

In order not to be tedious, I refrain from minuter details. That I may not be misunderstood, I will state explicitly that I by no means refer in this paper to all the chronic diseases of the heart and liver occurring in Brazil, but to a certain and large proportion of them; and, anxiously desirous to arrive at a more intimate knowledge of these diseases, I earnestly hope this memoir may call forth comments from qualified persons; for—

"Si peccant artes aliæ tolerabile certe est;
Hæc vero nisi sit perfecta est plena pericli,
Et sævit tanquam occulta atque domestica pestis."

City of Campinas, Province of San Paulo,
Brazil, Aug., 1847.

OBITUARY.—On the 11th instant, at Glasgow, R. Perry, Esq., M.D., aged 66.

FAILURE OF CHLOROFORM.

By JOHN PRANKERD, Surgeon, Langport, Somerset.

Believing that as much information is gained by the profession from the publication of the unsuccessful as from the successful cases, I briefly record the experience I have had in the administration of chloroform, simply observing that I have succeeded in several instances in producing perfect unconsciousness and insensibility to pain; but in the following case, it will be perceived, a total failure occurred, and in others the partial influence only was produced.

Hannah Beckey, aged seventy, admitted into the Langport Union Workhouse, Jan. 7, 1848, with the right foot and leg in a state of dry gangrene, accompanied by a feeble pulse, loss of appetite, great restlessness, and anxiety. She was ordered opium, nourishment, and wine, which by the evening had made her comfortable, and procured sleep.

From the 9th to the 12th she continued much the same, requiring opium three times a day, and castor oil to regulate the bowels.

12. She has had no sleep; is very weak; the pulse feeble; the appetite bad; and her leg become very offensive. I fully explained the danger and difficulty of the case, and stated that the removal of the limb would not ensure life (as she was urgent for its being done). A few hours after, Mr. Valentine, of Somerton, a neighbouring practitioner, joined me in consultation, and he again explained to her the nature of the symptoms, as also did the chaplain of the workhouse; but as she was still willing to undergo the operation, and being assured that, through the administration of chloroform, it would be attended with no pain, she was removed to another room for the purpose; and, on placing her on the table, her bowels appeared enormously distended, and it was evident it must be from fluid. She said that her water had passed regularly, and in considerable quantity; but, being satisfied that the bladder was distended, a catheter was introduced, and nearly *three quarts* of urine, by measure, were drawn off much to our astonishment. The inhalation of chloroform was commenced, Mr. Henry Stuckey holding some of Hooper's preparation in a handkerchief under her nose, and continued perseveringly for half an hour, occasionally changing the handkerchief for the bottle containing the fluid, and then trying another specimen we had, of Morson's manufacture, in a similar way. About an hour was spent thus in a fruitless way endeavouring to produce insensibility, but with the exception of a slight drowsiness, from which she was immediately roused by questioning, no effect whatever was perceptible. I then told the old woman I could not perform the operation without giving pain, and, as she was still willing, I amputated the thigh by the circular incision. The femoral artery was found much ossified; it and three other vessels were tied; about half a pint of blood was lost. She was given wine, and removed to bed, the stump being covered with lint. At eight o'clock the stump was dressed, a dose of Batley's given, and an assistant left in charge.

13. Slept well; better than at any time since being in the house; takes nourishment in good quantity, and is very cheerful; the stump easy; about three pints of urine drawn off.

14. Another good night; stump dressed in the presence of Mr. Valentine; adhesion had taken place throughout nearly two-thirds of the edges. Two sutures were taken away; in no pain, but rather fretful and peevish. Castor oil ordered, as the bowels were unrelieved. She continued going on alternately better and worse until the 23rd, the eleventh day from the operation, when she sunk, borne down by the disease, and also a sloughing of the nates produced from the dribbling of the urine, which occurred notwithstanding the daily use of the catheter.

It may be inquired to what the failure of the chloroform was owing; and I know of none, save the administration of wine, which was given her an hour before the operation, or idiosyncrasy of constitution. The usual precautions of quietude

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and freedom from mental excitement, avoidance of questioning and talking, were observed. The chloroform had been previously used successfully.

In another case, one of midwifery, where I had been in attendance for four days, and in which I was obliged ultimately to deliver by forceps. I also gave the chloroform; and, although producing sleep as often as administered, I could not perceive perfect insensibility, for the labour-pains, which occurred every five minutes, invariably roused the patient after a few times, although the chloroform was kept constantly applied.

In another case I extracted a tooth, and, as I thought, without the patient being sensible; but he distinctly stated that he heard voices in the room during the whole time, and was aware when the tooth was extracted.

In another case, the patient in a state of insensibility when the key instrument was applied for the abstraction of a tooth, convulsive action occurred, and he snapped off the tooth from violent contraction of the muscles of the jaw; he was insensible some time after the tooth was extracted, and left with headache and very drowsy.

In another case I introduced a seton in a patient that appeared unconscious, but she distinctly felt the needle and struggled hard, but without saying a word.

These few cases, briefly stated, will show that this agent, although powerful, is not always to be relied on, and, notwithstanding I have produced perfect insensibility and freedom from pain in others, I should in many cases be induced to pause before its administration. Headache, drowsiness, convulsive action, nausea, and other effects have followed, which, though not alarming, would show that it must be given guardedly. The specimens I have used were from the laboratories of Hooper, Morson, and Preston and Son.

THE MEDICAL TIMES.

SATURDAY, FEBRUARY 19, 1848.

SETTLEMENT OF THE QUESTION OF MEDICAL REFORM.

We are happy in being able to announce that there is a great probability that a final settlement of medical reform will speedily be accomplished. We can conceive the astonishment with which this declaration will be received by many of our readers, who, wearied with the duration of the struggle, have almost abandoned the hope of an adjustment. It must be, however, a cause of satiafaction to all classes of practitioners to know that such a scheme for the settlement of this question has been agreed to, as will sustain all interests that ought to be sustained, and render full justice to the claims of the general practitioners.

We rejoice, inexpressibly, at the approaching consummation of our wishes, and of the fulfilment of the hopes of those enlightened advocates of justice and equity who have so long contended for the legal recognition of those important principles. The scheme will, no doubt, in a short time be submitted to the profession; and we are informed that a general meeting of the committee and local secretaries of the old National Association is convened for this day (Saturday) to express an opinion on the plan that has been arranged.

Without going into details, we are at liberty to state that several conferences have been held, by delegates from the Colleges of Physicians and Surgeons, the Society of Apothecaries, and the National Institute, at the College of Physicians; these conferences, we understand, were conducted in the most amicable spirit, and with a strong desire among all parties to arrange such a scheme as should be satisfactory to all classes in the profession.

The profession will no doubt be impatient, after this announcement, to be made acquainted with the proposed scheme, and our readers may rely upon us that, so soon as it shall come before the public, we will give to it that consideration which so important a document will demand. Neither captiously objecting to minor details where the general welfare is intended, nor yielding indiscriminating assent where there may be matter open to disapprobation, we will endeavour to do our duty faithfully, and with a special eye to the interests of that class in the profession, whose well-being has been the constant object of our solicitude.

We cannot, however, refrain from expressing, at this early period, our satisfaction that the various corporate bodies of the profession, with objects and sentiments so dissimilar, should at last have agreed upon submerging all petty and illiberal jealousies, and upon uniting cordially for the accommodation of each, and the accomplishment of the general good. Continued mutual hostility would have been fatal, even to the interests it was intended to benefit; amity and co-operation can alone bring tranquillity and order to a disturbed and disorganized profession. The friends of peace will be gratified at this promise of future union and mutual accord. The olive-branch is proffered, and we hope that the terms which it professes to symbolize will be in reality such as a wise policy would approve, and an independent profession can without dishonour accept.

We believe that much gratitude is owing to Sir George Grey, for having brought the profession together to consider the grave question of medical legislation in a spirit of concord, whereby concessions may be rendered less ungraciously, demands made in a more conciliating temper, and the subject brought to an easy and satisfactory termination.

LORD MORPETH'S BILL.

The following is the substance of the principal enactments of this measure:—

A General Board of Health is constituted, consisting of the First Commissioner of Woods and Forests, and four others appointed by her Majesty. These have the power of appointing a secretary, clerks, and certain superintending inspectors (number not named).

On the petition of fifty householders a superintending inspector must make local sanitary inquiry; of which inquiry, however, full notice is to be given. On such report the commissioners may extend their powers to such locality.

The mayor and certain members of the council of every municipality shall be formed into local boards of health.

The local boards may appoint surveyors, inspectors of nuisances, clerks, and treasurers, and the same person may be surveyor and inspector of nuisances.

The duties are, of course, making, altering, discontinuing, cleansing, and emptying sewers and drains.

No new house is to be built without drains and privies, and old houses must be provided with them.

Streets are to be cleansed, places provided for the deposit of dirt, soil, &c.; offensive ditches and drains to be covered. Fireplaces and factories to consume their own smoke; and no new slaughter-houses to be permitted without the licence of local boards.

The general board must be satisfied that sufficient ventilation has been provided in all new public buildings; and lodging-houses must be registered by the local board. Restrictions are put on the use of cellars as abodes.

The local board may provide places of public recreation, and sufficient supplies of water, and may erect waterworks, &c.; but to contract in the first instance with water companies willing to supply their district; and not to lay down water in streets already supplied, &c.

Compulsory supply of water in certain cases.

No new house to be occupied until provided with means of supplying water for domestic use, drainage, &c.; and all houses to be properly supplied with water for all such purposes.

Premises for the reception of the dead previously to interment are to be provided.

Depth of soil above coffins is fixed.

Burial-grounds, &c., dangerous to health, to be shut up.

Interments within churches or burial-grounds, newly erected or formed, are not to be permitted.

The other enactments refer to the raising of rates, and to other similar matters of no special interest to our readers.

REGISTRAR-GENERAL'S QUARTERLY REPORT.—EPIDEMIC INFLUENZA.

The fourth return for the quarter ending Dec. 31, 1847, of the mortality in 117 districts of England, has just been issued by the Registrar-General, and is a document more than usually interesting to the medical profession. Within the last few months Europe has been visited by a severe epidemic, and our own metropolis has especially felt its virulence.

Towards the latter end of November, after some singular atmospherical vicissitudes, the influenza commenced its ravages, and carried off in the course of six weeks 11,329 persons. During the whole period the epidemic lasted, 5000 individuals died over and above the average mortality of the season. The greatest intensity was manifested in the second week of its course; raged with nearly equal violence through the third week; declined in the fourth, and then partly subsided; but, the temperature falling, the mortality remained high, not only through December, but through the month of January.

Those upon whom the disease appeared to exercise the most powerful influence were adults and the aged; in the three weeks of the epidemic ending Dec. 18 the deaths under the age of 15 were 2846. In the same two periods the deaths at the ages 15 to 60 were 969 and 1970; at the age of 60 and upwards, 576 and 1999. The mortality in childhood was raised 82 per cent., in manhood 104 per cent., in old age 247 per cent. From the age of 4 to 25, however, the mortality was comparatively not very much increased; at the age of 10 to 15, the healthiest period of life, it was scarcely increased at all—in girls.

It appears from the returns that not only were those enfeebled by previous disease subject to the attack of influenza, but also those of healthy and robust constitutions; these latter, however, from the energy of the vital force, were enabled to resist more effectually the epidemic, while the former more easily succumbed. The poison seemed to pervade the whole system, but affected chiefly the mucous membrane lining the sinuses of the face and head, and the air-tubes of the lungs. Hence those subject to asthmatic paroxysms died, when attacked, in con-

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siderable numbers: the deaths ascribed to asthma in October and November were 12 weekly; in the six weeks of the influenza epidemic, 77, 86, 78, 52, 14, 26, besides the numerous cases classed under influenza. The deaths ascribed to bronchitis in the week ending October 30 were 36, and in the nine following weeks, 49, 58, 61, 196, 343, 299, 234, 107, and 138. The deaths ascribed to pneumonia during this time were, 62, 68, 79, 95, 170, 306, 294, 199, 131, and 148. In some of these cases the inflammation specified was the primary disease, in others secondary, and in many it was influenza—misreported. The Registrar-General remarks from these circumstances, that "there is a strong disposition among some English practitioners, not only to localize disease, but to see nothing but a local disease; hence, although it is certain that the high mortality on record was the immediate result of the epidemic influenza, the deaths referred to that cause are only 1157; viz., in the first week of November, 2, and in the eight weeks following, 4, 4, 36, 198, 374, 270, 142, 127; and these include nearly all the cases in which influenza was returned, whether as primary or secondary, in conjunction with other diseases. A similar defect has hitherto been found in the returns of all great epidemics: in 1665, the great plague year, 97,306 burials were returned in the London bills of mortality, only 68,596 of which were ascribed to plague. Influenza attacked persons labouring under zymotic diseases; thus the deaths from hooping-cough rose from 12 and 25 to 65 and 71 during the epidemic; the deaths from measles rose from 43 to 96, 89, 69, 75, during the first four weeks of the epidemic, and then subsided to 37 and 68. Typhus, which had been fatal to 70 and 80 weekly, rose to 132, 136, and 131, in the second, third, and fourth week of the influenza epidemic, and then fell to 88 and 74. Although influenza is not mentioned in these cases it is in others, and there can be little doubt that two or more zymotic processes do often go on simultaneously in the blood and body; a fact of profound interest to the pathologist, and worthy of attentive investigation."

The epidemic, as might be expected, proved more severe in some parts of London than in others; thus its fatality in Lewisham and St. George's-in-the-East was as 1 to 4. This latter district is one of the most unhealthy in the metropolis, in consequence of the filth and wretchedness in which the poor are compelled to pass their lives. In many parts there is no drainage whatever, and sometimes the lower parts of the houses are flooded with water, which, when it recedes, leaves a disgusting accumulation of organic matters in a state of decomposition. Under certain conditions of the atmosphere these, undergoing transformation, produce disease.

The meteorological phenomena were particularly remarkable prior to the breaking out of the influenza. The wind, from the first week in October, had been blowing S.S.W. and S.W.; the weather was very warm; a brilliant aurora was seen, and shook the magnets on the 24th of last month; it appeared eight times during the quarter. On the 16th of November there was a remarkable gloom; the wind changed to N.W., and, amidst various changes, still blew from the north over Greenwich at the rate of 160 and 250 miles a day. The mean temperature suddenly fell from 11° above to 10° below the average. On Monday it was 54°; Friday, 32°; the air on Friday night 27°; the wind was calm three days, and on Saturday a dense fog prevailed over the metropolis for five hours. No electricity was perceptible during the week. On Sunday, clouds and damp prevailed, the wind changed in the night to S.E. by E., and passed four days over Greenwich at the rate of 200 to 300 miles daily; the temperature suddenly rose, and remained from 2° to 9° above the average through the week ending November 27, when the influenza became epidemic. Extreme cold never increases the weekly mortality in London above 1500; extreme heat still less; intermediate changes slightly. The November fogs do not give rise to influenza.

The reports received from the provincial registrars show that the epidemic prevailed in most places at somewhat later periods than in London, and that it put on a milder character. At Edinburgh, Dr. Stark states that it suddenly made its appearance, attacking large numbers of the inhabitants, twice during the month of November, on the 18th and 28th. On the last occasion severe frost prevailed, with a damp atmosphere and thick fog, which supervened after a few days of very cold weather. The mean temperature of the city was in December, 39°; the highest 57°, the lowest 21°.

In Paris it appeared about the 4th of December, affecting nearly half the population. At Madrid 5000 of the inhabitants were laid up on the 11th of January. The Registrar-General has been furnished by Sir William Burnett with returns of the epidemic on foreign stations, by which it appears that in January and February, 1847, it prevailed on the coast of Portugal and south-east of Spain; January, February, and March, in Newfoundland and New Zealand; February and March, at Valparaiso; April, coast of Syria; July, August, and September, west coast of Africa, south of the equator; August, Hong-Kong.

An interesting account is given of the different influenza epidemics which have prevailed in England. The years marked by these visitations were 1728, 1733, 1743, 1758, 1762, 1767, 1775, 1782, 1788, 1803, 1831, 1833, 1837, and 1846-7.

There can be little doubt that, by the carrying out of efficient sanitary measures, the fatality of epidemics in London and other large cities may, to a great extent, be prevented. The Registrar-General warmly espouses this doctrine, and laments that the efforts of her Majesty's Government to introduce such measures were, during the last session of Parliament, strenuously opposed. We look anxiously, but hopefully, to the future. There is a prospect of the abolition of cesspools, the better construction of sewers, and the building of more convenient dwellings for the poor. Sanitary reform, however, cannot be perfect till the tax on light and ventilation be abolished. If Ministers should refuse this, after all they have said and done on behalf of public hygiene, their conduct will be thoroughly inconsistent with their protestations, and they will be universally considered the greatest enemies of the cause they advocate.

USE AND ABUSE OF CHLOROFORM.

The death of Hannah Greener, while under the influence of chloroform, has produced much excitement, both amongst the members of the medical profession and the public. As might have been expected, it has roused those who have felt prejudices against anæsthetic agents to state more boldly that they will not prove such great boons to suffering humanity as was at first expected. No fatal case from the use of chloroform, that we know of, had occurred till the one we recorded two weeks ago in our pages, though surgeons in every part of Europe have almost daily employed it. So accustomed have we been to hear of operations performed upon patients under its influence, from the extraction of a tooth to the amputation of a limb, without any fatal results, that, had it not been for the death of the young girl at Whickham, chloroform was in danger of speedily losing the charm of novelty. The untoward event referred to, however, instead of causing this powerful agent to be laid aside as too dangerous to be used in the practice of medicine and surgery, will only make the members of the profession more cautious in its application.

Dr. Meggison, under whose direction the chloroform was administered to the unfortunate young girl, is acquitted of all blame by every enlightened and well-disposed member of the profession, as he not only gave it to the patient with caution, but endeavoured promptly to sustain the drooping vital powers when symptoms of danger manifested themselves. That there was some peculiarity in the constitution of the girl which produced them can admit of little doubt, as greater quantities have been administered to younger patients, and they have been kept under its influence for a considerable length of time, without any injurious consequences resulting.

It is evident, however, from the facts which we have from time to time published, that in some constitutions a very small dose will produce convulsions, in others hysterical paroxysms, in others fainting and sickness; practitioners, therefore, must be especially careful of the quantity and manner in which this powerful agent is employed.

The death of the girl Hannah Greener, from the direct influence of chloroform has been, however, called in question by Dr. Simpson, of Edinburgh. We published last week his opinions on the case. He remarks, "It evidently appears that the girl fell into a state of syncope at the time of operating. The syncope might result from the operation, or from the chloroform, or from both. I have seen in a few rare cases such a blanched state of the lips come on under the use of very powerful and deep doses of chloroform, simulating syncope, and the respiration temporarily suspended; but these symptoms always readily disappeared, and the patients speedily recovered, by simply removing the chloroformed napkin from the face, and letting them alone; and I most sincerely and conscientiously believe that such, also, would have been the result in this unfortunate instance if nothing more had been done." The brandy and water administered by the surgeon, Dr. Simpson considers the immediate cause of death, "as much as if the whole head and face had been submerged in the same fluid."

Since the above fatal case, another has occurred at Aberdeen, not by administering the anæsthetic agent for the laudable purpose of assuaging pain under a surgical operation, but in consequence of an individual inhaling to produce excitement and pleasurable sensations. The person who became the victim of his own folly was a youth, seventeen years of age, and apprenticed to a chemist. He was known to have inhaled chloroform on several occasions, and in consequence of his propensity the bottle was hid. On the morning of his death, having discovered it, he was seen

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about midday pouring a quantity of the anæsthetic agent on a towel and applying it to his mouth. When insensibility was produced, he appears to have fallen forward with his face on the towel. In this position he remained about ten minutes, and when raised was apparently dead. The efforts of the medical gentlemen called in produced not the least sign of returning life.

The fatal issue in this case was probably brought about by suffocation, the youth having been unable to remove from his face the towel, in consequence of the rapidity with which insensibility came on. That there was a considerable quantity of chloroform inhaled there is little doubt, though the exact amount is not known, and it might have proved fatal even if the deceased had not fallen in such a manner as to impede the action of the lungs.

That this anæsthetic agent is used by very many individuals of both sexes for the purpose of producing pleasurable sensations admits of little doubt, and as little that with the greatest facility it is furnished to them by many chemists and druggists for a certain sum per ounce. Nor will the Aberdeen case deter the *unlawful private* practitioners from administering in future the vapour to themselves, any more than the Whickham case will the members of the profession from giving it to patients when about to undergo a painful operation. Chloroform, however, is not an agent to be carelessly exhibited, and medical gentlemen must closely watch its effects.

WAKLEY AGAINST THE MEDICAL TIMES.

Our readers know that four or five years ago we bore the brunt of an action, which rested on the publication of a letter signed "Vindicator," suggesting to the member for Finsbury the possible uses of a Court Medical. The jury, after two hours' deliberation, returned a verdict for £150, being exactly the one-fifteenth part of the sum the M.P. asked as an equivalent for his injured character.

We reported the trial, giving, as a part of it, the celebrated letter the cause of all.

Although that report was fair and true, it was made the subject of a fresh action, which, commencing in 1845, was, after many hesitations and doubts, tried in 1847; and then it was oddly enough contended that we had no right to let our readers know the whole merits of the case we reported. The jury, under the direction of Chief Baron Pollock, adopted that startling and illiberal opinion, and gave £175 damages. There was here, however, a principle at stake of value to independent journalism. We moved, therefore, for a new trial, relying for its concession on the judge's misdirection. The judges being equally divided, the decision was, as is the rule, not for us, but against us. We were yet not content: we sued out a writ of error, for we were determined to test the illegality in the highest court of judicature. Again we were disappointed. A recent case, involving substantially the same merits, had been decided against our views, and to argue the matter further would be vexatious without advantage, and costly without dignity. The plaintiff took, therefore, when the case came on a day or two since, an unresisted decision.

In the former case we paid the honourable coroner £150 damages, and about £80 costs, for his character. In the present, we have paid £175 damages, with about as much more as costs.

The following is the receipt that testifies to this curious transaction:—

"Received this 17th day of February, 1848, of "Mr. Healey, the sum of £362, the amount of "damages and costs in the above action, as under:

"£175	0	0	damages.
" 124	3	0	costs in the action.
" 55	8	0	costs in error.
" 0	13	0	ditto in bail.
" 355	4	0	
" 6	16	0	interest upon judgment.
"£362	0	0"	

(Signed) "Lofty, Potter, and Son, plaintiff's attorneys."

We have thus had the contentment of paying about £600 for what must now be looked on as a well-paid-for *bijou*—the West Middlesex coroner's character. While we have the authority of two juries that the money is worth the character, we are not anxious to deny that the character is worth the money; still, whatever rights we have secured in this novel stock-in-trade, we are ready to part with on much easier terms.

Although we have thus enabled Wakley to turn character to a use, and extract from it the valuable services of a marketable commodity, we have no regrets to make, and no repentance to avow. We did what we considered a public duty; and we did it as we felt, and still feel thoroughly, fearlessly, and conscientiously. The sensitive plaintiff has gained £325: the defendant has lost little, and the profession has profited largely. The associated bubbles have broken—the calamitous position of medical leader is gone—the profitable despotism of unprincipled journalism is vanished; and thousands of pounds in cash, and ten times its worth in position, are the costly purchase-money that was paid for the paltry allowance we have willingly immolated in this saving service to the profession.

MEDICO-LEGAL STATE TRIALS.

We are requested to announce that under this heading an elaborate work is in preparation for the press. It will be published monthly with the magazines, in parts, price half a crown each, and the work, it is expected, will be completed in from six to twelve numbers. The first part, of whose completion very full notice will be given, will contain the fullest details, with comments and explanatory notes, of two of the most extraordinary cases known to medico-legal annals, namely:—

1. The Gardiner Peerage Case, decided by the House of Lords in favour of the petitioner.

2. The case of Wakley and the Hope Insurance Company, tried in the Guildhall, London, in 1821 (June 21).

We have only to add that this important public duty has been confided to hands which guarantee as careful and efficient execution as the friends of medico-legal justice can desire.

MEDICAL TREATMENT OF THE POOR.

Lord Ashley proposes to move the following resolutions, founded on the evidence taken before the Medical Relief Committee in 1844:—

1. That it is the opinion of this House, that the poor-law commissioners should cause a list to be made out, by the proper officer in each parish of a union, of the poor who may be entitled to attendance from the medical officer of the union; and that all such persons shall be at liberty to ask for assistance, without previously obtaining an order to that effect from the relieving officer, overseer, or other person, when so seriously ill as to be unable to leave their homes. That the poor thus applying shall not be entitled to such medical attendance beyond twenty-four hours, unless they obtain the signature of the relieving officer to the printed order usually issued by him to the surgeon; but which printed order shall in such case be given by the surgeon to the poor man in the first instance, to be carried by him or his friends to the relieving officer for his information and counter-signature, as an acknowledgment of the fact of such medical relief having been asked for and obtained.

2. That all casual poor requiring medical attendance be treated in a similar manner, the surgeon being at liberty to refuse further attendance if the counter-signature of the relieving officer be not obtained.

3. Every woman claiming medical assistance from the parish in consequence of being pregnant shall be entitled, in all cases, to the aid of the medical officer with her first child, and also with the second or others which may follow, provided she present a certificate from the medical officer who attended in her previous confinement, stating that circumstances had occurred in it out of the ordinary and natural course of events, which render it desirable that she should have medical attendance on the next occasion of delivery.

4. That, in the event of its being necessary to destroy the child in order to save the life of the mother, the union surgeon shall be at liberty to seek the assistance of another competent practitioner, if he sees fit, before the necessary operations are performed, and who shall be paid for the assistance rendered, on producing to the union or proper officer the joint certificate of the union surgeon and himself that such consultation and aid were essential, previously to the expected legal and necessary deprivation of life.

5. That no medical person be appointed surgeon or medical officer to a union unless he possess a diploma in surgery, and a degree, diploma, or licence in physic, from one or other of the Universities or Colleges of Physicians or Surgeons, or Societies of Apothecaries of the United Empire, legally entitled to grant respectively such licences, diplomas, or degree; and that if, under any circumstances, it should be found necessary to employ unqualified persons, such unqualified persons must have a special permission granted by the poor-law commissioners, under their handwriting, with the reasons for such permission annexed; all such permissions to be annually laid before Parliament at the commencement of the session.

6. That from and after the month of March next, the appointment of medical officers of unions shall be permanent during good behaviour, they being removable only by the poor-law commissioners, whose decisions shall be final.

7. That it is expedient that medical inspectors be appointed by the poor-law commissioners, or by the Secretary of State, or with his sanction; one to each district to which an assistant poor-law commissioner or inspector is attached, at a salary not exceeding four hundred pounds a year, exclusive of travelling expenses, and exclusive of an allowance of a clerk, if the duties should require one.

That the duty of the medical inspectors should be to inspect and report on the medical treatment of the poor of the different unions, and on the fitness of the medical men appointed by the unions; to inquire particularly into the treatment of the sick poor in the union-houses, and to regulate such treatment; to inquire into and report on the diets and healthful condition of the poor within them generally, together with such other sanitary duties of every kind as may be required of them by the Secretary of State, or by the poor-law commissioners; and particularly with respect to the number of medical officers who ought to be employed in each union, and the salaries which ought to be awarded to them for their services in each particular union, or part of a union, in the district.

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DR. LEE AND THE NERVES OF THE HEART.

[To the Editor of the Medical Times.]

SIR,—Dr. Hunter once said, on a very solemn occasion, "that men of science live like devils." Limited as my personal intercourse has been with such men, I have, in the last thirty years, seen enough of them to know that Dr. Hunter was quite right.

My own humble name stands prominent in a huge volume to authenticate one of the biggest lies that ever was fabricated. I saw the matter in proof, and hastened to tell the author that he had made a mistake, detailing to him, at the same time, the particulars of the case. Out the case came, however, just as it was when I saw it in proof, without the alteration of a single word. The "man of science" made a great reputation by that book. It is to this day a work of authority in a certain branch of the profession, though, to my own knowledge, the case to which I have alluded is not the only one misrepresented in it. Coining cases is the commonest thing going with your "men of science;" and I would suggest to young practitioners not to be too ready to give credit to your rare and marvellous cases, and to be careful not to follow with implicit faith the plans of treatment laid down by the publishers of such cases.

I had once under my care an old woman with a fracture of the neck of the thighbone within the capsule. The case was singular and obscure, and at the first glance, and without a most careful examination, any surgeon would say it was a case of dislocation; for the limb was elongated, and the great toe turned inwards very considerably. I satisfied myself by a lengthened and careful investigation of the nature of the case, and was sure that it was a fracture of the neck of the femur within the capsular ligament.

It so happened that the day after the patient was brought in, a great surgeon, one of the heads of the profession, visited the infirmary. I called his attention to the curious case. He at once pronounced it a dislocation. I said no, that it was a fracture of the neck within the capsule. "Poh! man, impossible;" and with that he set to to examine. He persisted in his opinion with an air of infallibility that soon threw my opinion overboard with the pupils. It came to pass, however, that the patient died soon after. The bone was taken out by the pupils in my presence, and the fracture within the capsule was discovered without a dislocation. I wrote to the big man, crowing a bit upon my triumph, telling him at the same time that the bone was in maceration at the infirmary, where he could see it. He called the next day, in my absence, ran away with the bone, and had the case in print in twenty-four hours after, not failing to tell of his own cleverness in detecting in a twinkling the real nature of the case, deceptive as the appearances were. But that was not all. He exhibited the preparation at the Medico-Chirurgical Society, and appealed to my colleague, who was there, for the truth of the lie he was telling.

There are always lurchers and poachers in the field of science. No man's manor is safe from them. It is well known that Lavoisier ran away with the fame that belonged to Watt for the discovery of the elements of water.

Home (Sir E.) made his reputation as "a man of science" out of the unpublished papers of John Hunter; and I have often heard it hinted that, if Hunter could burst through the cerements of the tomb and revisit this world, he would say of the celebrated experiments upon poisoning with arsenic, &c. &c., published in "The Philosophical Transactions" of 1812:—

"Ego feci
Alter tulit honores."

Those experiments established abroad for one of our most eminent surgeons the reputation of a "man of science."

But there are hundreds of instances where "men of science" have been detected rushing into print with other men's ideas, and passing them as their own.

I recollect, many years ago, M. Dijesnette, in a familiar conversation, was communicating to a few of us students, in one of the parlours at the School of Medicine, his views upon some disputed points in physiology. Richerand came in, upon which Dijesnette stopt suddenly. "Let me not interrupt you," said Richerand, "pray proceed." "Not whilst you are here," said Dijesnette, "for you would print my opinions, and publish them as your own." "Eh bien!" retorted Richerand, laughing, "your opinions would then have some weight with the profession!" Richerand was a famous poacher. A hint was enough for him; he was ready at the pen, and printed as fast as he wrote, to establish priority of publication.

In 1832, when the cholera was making sad ravages in this country, I was an invalid, and was dreadfully afraid of it. I took it into my head that it was caused by something afloat in the atmosphere; and my own secretions, and those of many others which I examined, being surcharged with acid, I took it for granted that the atmosphere was tainted with gas or effluvium morbidly acid, that excited the disease. It was only a guess, yet I took antacids in large doses, and recommended them to others as prophylactics.

In the course of a casual conversation I told an eminent physician, a great author and "man of science," what I had been guessing and cogitating upon the subject. In a week after I saw all my guesses and crude suppositions in print, as the philosophical inductions of this great man, for whom a great chemist had analyzed the atmosphere, in which he detected the presence of an acid vapour.

The *éclat* with which this discovery was received filled me with scientific pride; and I can assure you, Sir, that it is the proudest and most overbearing of all pride. I began to think that, *malgre moi*, I was a "man of science;" that I had always underrated myself; and that all I wanted to make a great reputation was a stock of impudence.

Impudence, it appears, is as necessary an ingredient in the character of your modern "man of science" as the spirit of revenge was held to be in the character of a great man by the ancient Greeks.

Dr. Lee, if the allegations against him be well founded, surpasses all men that I have ever heard of in brass and impudence. Strong, indeed, must the nerves of his heart have been if he made the attempt imputed to him to impose upon the Royal Society in so barefaced a manner.

Dr. Lee has made some character in the science and literature of the profession, but all his works will fall into disrepute, and his alleged discoveries will require further confirmation, if the crime against science and morality with which he is charged be proved against him. The question is one of vast importance. The Royal Society is implicated in it, and must necessarily institute a formal investigation of the matter, for in the face of Europe it cannot be allowed to rest where it is. Has the Royal Society the power to expel its recreant members?

If Dr. Lee be found guilty, what will the College of Physicians do? What will the Medico-Chirurgical Society do?

The whole body of the profession is interested in this business; for reputations thus surreptitiously acquired by unprincipled men give them an undeserved eminence, and an advantage over their more honest and deserving *confrères*.

I have the honour to be, Sir,
Your constant reader,
London, Feb. 10. M. D.

DR. ROBERT LEE AND HIS ACCOMPLISHED ARTIST.

[To the Editor of the Medical Times.]

SIR,—I am at a loss to conceive what could have induced Mr. West to have come forward and addressed to you a letter on Dr. Robert Lee's discoveries of nerves of the heart. He evidently wishes to impress your readers that he has not been a *particeps criminis* by introducing into his drawings what he never saw with his own eyes, but what the great anatomist, Robert Lee, must have told him he ought to see and delineate. If this artist had really been desirous to lend his aid and give his testimony to the Physiological Committee of the Royal Society, in exposing the mistake which Dr. Robert Lee took so much trouble to attempt to palm upon them, he would have come forward in an open and manly manner, and stated distinctly the directions he had received from the "great discoverer," and thus exculpated himself from all blame; in place of which he attempts to throw a veil over the whole of the transaction, and giving no further explanation than telling us he is merely "an artist, not an anatomist." No one, I am assured, has accused him, as he asserts, of either "carelessness or wilful neglect;" but no one can possibly acquit him, judging from his "letter," of not being aware that the drawings had been "corrected by the anatomist himself." JUDEX.

University College, Feb. 12.

HOW TO EXAMINE A FELLOW.

[To the Editor of the Medical Times.]

SIR,—An incident occurred at one of the late fellowship examinations at the Royal College of Surgeons, which calls for interposition on the part of the proper authorities, if there be any such, who exercise a control over the conduct of that body.

One of the candidates was required by one of the Court of Examiners to tie the ulnar artery, but, not proceeding satisfactorily, the examiner, one holding a high post, interfered, and proceeded to complete the operation, which he accomplished by tying the ulnar *nerve* instead of the *artery*.

Had the candidate, and not the examiner, made this mistake, it is most probable that he would have been rejected.

Permit me to ask, Sir, why the college authorities do not make some arrangement regarding the retirement of those members of the court who have become incompetent from age to perform the duties for which they are so liberally paid? Are we still to be treated with similar exhibitions to those which disgraced the college during the senility of Sir William Blizard, Abernethy, and Sir Anthony Carlisle?

Her Majesty grants a new charter to the college, and forthwith it becomes the ridicule of the profession in consequence of the imbecility of those appointed to carry it into execution.

If any doubt should be cast on the statement, I beg to refer the incredulous to the college demonstrator, who called the attention of the learned examiner to his blunder.

Mistakes will occasionally occur to the most able, but such should be arrested, as far as possible, by the appointment of examiners whose years have not rendered them physically incapable.

Your very obedient servant,
Feb., 1848. SCRUTATOR.

THE FATAL CHLOROFORM CASE.

[Dr. Wigglesworth, of Swansea, has addressed through us a letter to Dr. Simpson, controverting his view of the cause of death in the case of Hannah Greener. After adverting to the professor's opinion that the patient died from suffocation, he says]:—

Without entering into the question whether breathing was possible or not, or whether the patient did or did not, could or could not, swallow, I have no hesitation in stating that, in consequence of the "state of syncope," the "weak and torpid state," into which the girl had fallen, the necessity for breathing was reduced to a minimum, and that even its complete absence in this state would not satisfactorily account for death in three minutes, or twice three, or three times three.

You appear, Sir, to have fallen into the error of considering that air is as much required for the arterialisation of the blood, and for the maintenance of the functions of life, in the state of syncope, as in the active condition of the body—when the functions are suspended as when they are active; for how otherwise can we account for your attributing the death of a fainting person to asphyxia in a period actually short of that which is required when the body is healthily acting.

I do not know any authority to whom I can better refer for proof that there is a wide difference in this respect than Dr. Carpenter, the gentleman whose writings you have drawn upon to prove that this poor girl was "choked or asphyxiated" by the brandy and water.

The following extracts are taken from "Carpenter's Principles of Physiology," 3rd edition, sec. 778, and the same author's "Manual of Physiology," sec. 707. As to the time required for producing death by asphyxia in an active animal, Dr. Carpenter says, "It may be stated as a general fact that, if a warm-blooded animal, in a state of activity, be deprived of respiratory power, its muscular movements, with the exception of the contraction of the heart, will cease within five minutes, often within three; and that the circulation generally fails within ten minutes." The chief exceptions are then mentioned, viz., divers, whose power of remaining under water is "acquired by habit;" also diving animals, such as the whale, whose structure fits them for keeping below the surface; after which Dr. Carpenter continues as follows:—"Another exception exists in the case of hybernating mammals, which are reduced for a time to the condition of cold-blooded animals, and which can, like the latter, sustain a prolonged suspension of the aërating process; and there is reason to believe that in the state of syncope or fainting, in which the circulation is already reduced to a very low amount, in consequence of a partial failure in the heart's power, all the functions of the body being nearly suspended, and the demand for aëration being consequently small, the respiration may be suspended for a long period even in the human subject

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without fatal results. Thus, more than one case has been credibly recorded, in which recovery has taken place after a complete submersion for more than three quarters of an hour; and it is probable that in these instances a state of syncope came on at the moment of immersion through the influence of mental emotion or concussion of the brain."

Now, if we turn to your own description of the case of this poor girl, we shall find that it agrees almost to the letter with the above quotation—that all the conditions necessary for a protracted suspension of respiration without death resulting were present. You say, it evidently appears that the girl "fell into a state of syncope at the time of operating," with the "respiration temporarily suspended," and that in this condition, instead of "letting her alone," "brandy and water were allowed to rest in and fill up the pharynx," producing the same results as if the whole "head and face had been submersed in the same fluid;" or, in other words, that the patient's condition exactly resembled that of a fainting person, and hence, from what we have said, that she was actually in the very state in which, instead of dying directly, she ought to have lived for a protracted period—of all conditions the most favourable one for the continuance of life without the continuance of the respiratory process.

The question, then, naturally suggests itself, and perhaps you will favour the profession with the reply,—Why was life in this case almost instantaneously extinguished when the conditions were all favourable for its prolongation?

It appears to me, that the quotation you gave from Mr. Guthrie's work does not in any way support your view. Mr. Guthrie merely says that fluids put into the mouth "might possibly enter the larynx and destroy." He does not say that it would be quite sufficient to destroy a fainting person in two minutes. Indeed, if such were the fact, how is it we have not coroners' inquests on similar cases every day, for surely nothing is more common than to put a "little brandy" and water into the mouth of a fainting person?

Having, therefore, by reasoning on the materials furnished by yourself, deduced, as I think, the "self-evident conclusion," that your view of the cause of death, instead of being satisfactory, is quite the reverse, let us turn from the irrational to the rational—from the unlikely to the likely. And, at the commencement, I would say, that it seems at first sight far-fetched to attibute death to a little brandy and water, of which probably as much was rejected by the mouth as was received into the pharynx, when the patient had just been inhaling a powerful narcotic poison.

I believe, indeed, with the jury, with Drs. Meggison and Glover, Sir John Fife, and all those who, being immediately connected in the case, were best calculated to form a correct opinion, that the poor girl died from the effects of chloroform, and nothing else; and I further believe that the great majority of the profession will not be led into the adoption of another creed. Is it probable, I would ask you, that, if the patient had been suffering from syncope only—the chloroform producing no deleterious influence—she would have parted with life as easily as she did? Her state could not be compared with that of submersion, for the liquid which "filled the pharynx" was capable of being readily displaced; and, although it might have been "partially drawn into the larynx," yet air would certainly have been drawn in too, sufficient to have prolonged life, if not to have saved it. I think, indeed, that "simple asphyxia" could not possibly have been produced without a powerful struggle, and that the girl, admitting all you assume to be correct, could only be partially, and not entirely, excluded from air.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Continued from page 319.)

(John Ayrton Paris, Esq., M.D., President of the Royal College of Physicians, London, called in, and Examined.)

The College of Physicians and the Bill.—I am president of the College of Physicians. My attention has been directed to the bill which is now before the House of Commons, introduced by Mr. Wakley and Mr. Warburton. Our college in its corporate capacity has petitioned against that bill. The bill has been considered by the corporate body over which I preside. The governing portion of that body has repeatedly considered it. The governing portion of that body is a special committee appointed by the college, for the purpose of examining and considering the various clauses in the bill, and that committee went into an examination of it. The vote of the college appointed that committee. I refer to the college at large; at the *comitia majora*, or general meetings of the body, it is usual for the president to propose the names of gentlemen for a special committee, who are then balloted for and elected by the college at large. I am not clear as to the exact number of members of the college who were present at the *comitia majora*, at which this committee was appointed, but I should say about forty or fifty, or perhaps more; not exceeding sixty. The most active and the most eminent were present on that occasion. The committee was a large committee, and then that committee was found to be too large for practical purposes, and a sub-committee was formed, and that sub-committee consisted of (I will mention, if you please, the principal names) the president of the college, Dr. Burrows, Dr. Latham, Dr. Holland, Dr. Todd, Dr. Watson, and the registrar, Dr. Francis Hawkins; so far as my recollection serves me, those were the gentlemen who principally attended. That committee reported to the college from time to time. The petition to Parliament against the Medical Registration Bill was adopted in consequence of that report. It was a petition, formally speaking, presented by the president and censors of the college, with the concurrence of the college, but it is not the petition of the college at large; it was not deemed necessary to present a petition from the college at large; it would have caused unnecessary trouble, and it was well known what the sentiments of the college were; it was therefore considered that the petition might be entrusted to the president and the four censors as representing the college upon this occasion. The committee, after having agreed upon the report, did not bring that report, through me, under the consideration of the *comitia*. The report being presented, was not brought under the consideration of the college. We have had repeated meetings, and the bill has been considered in various ways, not only at the meetings of the committee, but at the *comitia majora* of the college; it has been thoroughly sifted, and the opinion of the college has been expressed in the petition which has been presented to the House. The petition, therefore, may be considered as containing the deliberate objections of the college to the bill now before Parliament.

The College in Danger from the Bill.—We stated in that petition, "That by clause 9 of the bill the charter of the College of Physicians would be in great part, if not wholly, abrogated, and the college superseded in all its important functions." It is quite obvious, from this clause, that the charter of the college, and all the laws by which that charter is supported, will be abrogated. The terms of the clause are these:—"So much of any act or charter granted before the passing of this act as prohibits any person from practising medicine, physic, or surgery, in any place, without such licence as is mentioned in any such act or charter respectively, or that imposes any restriction or penalty on the practice of medicine, physic, or surgery, further than is contained in this act, shall be, and the same is, hereby repealed." That takes away, of course, all the powers of the college, as to the supervision and examination of physicians, and all the functions of the college which are so important to the welfare of that branch of the profession over which the college presides. The functions which the college now, under their charter, exercises, which, I contend, would be superseded by the enactment in clause 9, are, the power of examining physicians then would be taken away; and, on examining the other clauses of the bill, it is very evident that no physician would come to us; it would not be necessary for him to come, inasmuch as he would be licensed by other means.

Charters of the College.—We have had various charters, but the one we act under is that of Henry VIII. That has been confirmed by act of Parliament: an act of the 14th and 15th of Henry VIII. The powers confided to the college under that charter so confirmed by act of Parliament, which has endured from the act of Henry VIII. down to the present time unrepealed and unaltered, are a jurisdiction of the college at large over London and seven miles round; so that no physician can practise within that magical circle without the authority of the College of Physicians. Then there is another important function discharged by the president and the elects of the college; we have the power of licensing all physicians in the provinces, with the exception of the graduates of Cambridge and Oxford; the medical degrees of Cambridge and Oxford confer the privilege of practice upon physicians in the provinces, and the president and elects of the College of Physicians have the power of licensing physicians in the provinces, but not in London; the jurisdiction over London being left to the college at large. The practice in the metropolis and in the circle seven miles round the metropolis is controlled exclusively by the College of Physicians; and throughout England and Wales no physician can practise *qua* physician except under licence from the College of Physicians, or by a degree granted by one of the two English universities. That is the present state of the law. Under that state of the law the public in England and Wales have this security for the competency of a physician in England and Wales, that his efficiency has been tested by the College of Physicians or by one of the two English universities. And from the time of Henry VIII. down to the present period that security has existed, and now exists. Those are our rights under the charter; we license all physicians in England and Wales who are not graduates of the universities, who present themselves for examination; and we feel it our duty, if any new parties appear in London, with respect to whom we have sufficient evidence of their acting as physicians, to call upon them to come before the college, and to show their qualifications for practice and to undergo an examination.

Examination of Physicians.—If they come, the examination consists of written answers to certain papers; a paper is given to them containing a number of questions in physiology and anatomy and in the practice of physic, and of passages from ancient medical writers, which they are called upon to translate; they are placed in a room with nothing more than paper and pen and ink, with a beadle at the door, so that they have no access to books, and for three successive mornings they answer those questions in the best way they can; those papers are then examined, and we proceed to a *viva voce* examination; that *viva voce* examination is divided into three parts: the first is upon anatomy and physiology; the second is upon pathology; and the third is upon therapeutics, or the art of curing disease. There are three distinct examinations, which are conducted before the president and four censors. The four censors are annually chosen, for the purpose of examining, and for the performance of other duties; the parties are examined in Latin and Greek.

Recusant Physicians.—We have a legal power, but, unfortunately, we have not the means of punishing the recusant physician who practises, and who, when summoned, refuses to attend. We have frequently done so, and when we have done so we have succeeded; but the expense of the prosecution and the difficulty attending it is so great, that we trust to the force of public opinion in preference to the strength of the law. I should honestly say that I think there are very few respectable physicians practising in that way; but it is a question the committee will feel that I have some difficulty in answering.

Power of the College.—Extending my view beyond the metropolis of this kingdom to England and Wales, I have reason to believe that there are many physicians practising who have not been licensed by us, and who have not

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graduated at Oxford or Cambridge. Our exclusive power of licensing, such as it is, can hardly be held to be operative under the statute. Besides examining physicians practising in London, and within a circle of seven miles, we have a moral power over them: if any licentiates or fellows of the college conduct themselves in a way which we consider unprofessional, we summon, censure, and fine them, and we consider that that is quite sufficient; we do not want any further power as to punishment. We have the legal power, if we think fit, of withdrawing his licence; but, independently of the legal power, we have the moral control of summoning him, and of admonishing him. That power has been exercised by our college even in modern times—very lately. I can state that at this moment there is a fellow of the college who is desired never to enter the building, and who has not done so for two or three years. It was in consequence of unprofessional conduct. He was then summoned, and he did not attend; he was summoned again, and told of the consequences if he did not attend. He was contumacious, and did not appear; and he was then visited by the penalty that I have stated, that he was not to come within the precincts of the college till he thought proper to submit himself, as he was in duty bound, to the college. We did not withdraw his licence; we contented ourselves with telling him not to come within the precincts of the college, he refusing to appear. But I must be allowed to observe, that when we admit a licentiate there is a form; the president admits him, and the president tells him at the same time, "You hold this licence only so long as you conduct yourself with professional propriety." There are no instances of the withdrawal of the licence on account of misconduct in late years; formerly there were; and at one time it was the practice to leave them out of the list of the college.

(To be continued.)

GOSSIP OF THE WEEK.

War-office, Feb. 4. — Assistant-surgeon William Augustus Heise, from the 35th Foot, to be surgeon, vice Johnston, who resigns.— 35th Foot: William Henry Short, gent., to be assistant-surgeon, vice Heise, promoted in the 26th Foot.—Feb. 11, 7th Dragoon Guards: James Thomson, M.D., to be assistant-surgeon, vice Lock, killed at the Cape of Good Hope.—46th Foot: Assistant-surgeon William Smellie Johnstone, M.D., from 87th Foot, to be assistant-surgeon, vice Wray, who exchanges.—73rd Foot: Assistant-surgeon Joshua Paynter, from the Rifle Brigade, to be surgeon, vice Campbell, killed at the Cape.—87th Foot: Assistant-surgeon Christopher Wright Wray, from the 46th Foot, to be assistant-surgeon, vice Johnstone, who exchanges.—Rifle Brigade: John Rigge Miller Lewis, M.D., to be assistant-surgeon, vice Paynter, promoted in 73d Foot.

Naval Promotions.—Henry Edmonds, Thomas S. Wells, assistant-surgeons, to be surgeons.

Naval Appointments.—To the Agincourt, John Dunlop, surgeon—Ernest Elliott, assistant-surgeon; to the Anna Maria convict-ship, Henry Baker, surgeon-superintendent; to the Blenheim, Abraham B. Bradford, surgeon; to the Caledonia, James Taylor, surgeon; to the Enterprise, John Robertson (B), surgeon; to the Powerful, Thomas R. Dunn, surgeon — Frederick Manger, assistant-surgeon; to the Queen, James Browne (B), surgeon; to the Collingwood, W. B. C. Christy, assistant-surgeon, confirmed; to the Raleigh, F. Morgan, assistant-surgeon, confirmed; to the Crane, George Ball, assistant-surgeon; to the Anna Maria convict-ship, Robert Stevenson, surgeon-superintendent.

Royal College of Surgeons.— Gentlemen admitted members on Friday, Feb. 11:—H. Gray, C. J. Evans, C. A. Lee, T. C. Maurilyan, C. Crowdy, J. S. Burd, J. Drew, J. W. Tripe, F. Manby, and R. Mason.

Apothecaries' Hall.—Gentlemen admitted members on Thursday, Feb. 3:—Charles Edward Prior, Worcestershire; Harry Gardner, Somerset; William Richard Black, Lincolnshire; William James Blyth, Abergavenny, Monmouthshire, James Reed, Pontypool; Robert White.

The Lock Hospital.—This asylum has extended its benevolence to 60,000 poor patients labouring under a disorder as contagious as it is loathsome and destructive. If the public reflect upon the vast amount of misery prevented, as well as actually remedied, by this institution, together with its important moral benefits in reclaiming so many who are not the hopelessly hardened, but the young, helpless, and uninstructed, they will promptly respond to the appeal made to them in favour of this ancient charity, whose usefulness is not little limited by a debt now pressing on it, amounting to nearly £1000.

The appointment of Dr. Allen Thomson to the chair of Anatomy in Glasgow is understood to be quite settled, and will in due time appear in the *Gazette*. His appointment will vacate the chair of Physiology in the University of Edinburgh, for which several candidates have already appeared. The professorship of Clinical Surgery in Edinburgh still remains vacant, the Crown as yet having made no public announcement on the subject.

Dinner at the Mansion-house.—On Tuesday last the Lord Mayor (the newly-elected President of St. Bartholomew Hospital) gave an elegant entertainment to the treasurer (Mr. James Bentley) and the house-committee. Several of the governors and all the medical staff were present. Amongst the company were Aldermen Thompson, M.P. (president of Christ's Hospital), Farebrother, and Musgrove; Sheriff Cubitt, M.P., Mr. Ralph Price (treasurer of Bridewell Hospital), Mr. R. Baggaley (treasurer of St. Thomas's Hospital), the Rev. Dr. Russell (rector of St. Botolph), the Rev. W. Wicks (hospitaller of St. Bartholomew's Hospital), &c.

M. Payan.—A prize has been awarded to M. Payan, principal surgeon of the Hospital of Aix, for a dissertation on the employment of iodide of potassium. This is the second distinction obtained by that renowned practitioner.

Irish Medical Squabble.—Two eminent physicians in Dublin are in a fierce conflict. In a late number of a medical periodical, one of the conductors charged the College of Surgeons with keeping up at a large salary a certain professorship which conferred no benefit. The gentleman alluded to replied in the *Medical Press*, that his antagonist, who is eminent in Irish antiquities, had acquired his character for antiquarian propensity, more particularly in reference to some recent excavations, the knowledge lavished on which was plundered from the academy. The question will be investigated at the next meeting of the Committee of Antiquities.

Health of Towns.—The Edinburgh Water Company have intimated their intention of availing themselves of the late Water Works Clauses Acts, so as to cause the owners of houses of £10 rent and under to be responsible for water duty. On houses of £6 and under, a fixed rate of 4s. per annum is to be charged, and ten shillings per pound on houses above. These rates are moderate enough, provided the act had at the same time compelled water companies to furnish a requisite amount of public wells, and as much water as would suffice for healthful cleansing; but they have a ludicrous appearance when exacted by a body which runs short of the pure element for months. The new Health of Towns Bill will not be complete, unless it establish a strict *surveillance* over aqueous corporations; the sanitary movement requires that means should be taken to prevent them from retiring within the fastnesses of their local acts, and so escaping account and reckoning when they fail in the performance of their contracts.

Turkish Graduates.—The Sultan has addressed the Emperor of Austria by letter, to allow five Turkish medical students to present themselves for the degree of doctor in medicine at the University of Vienna. This request was granted, and the five Turks, of the school of Galata-Serail, produced, and publicly defended, their theses in Latin, in the hall of the University of Vienna, when they were admitted to the degree, receiving the doctor's cap at the hands of the dean of the faculty of medicine.

Alleged Death from Neglect of Medical Orders.—In consequence of rumours that a child, aged seventeen days, the daughter of a railway labourer named Bell Horsfall, and whose wife was confined in Huddersfield workhouse on the 4th ult., had died from the want of sufficient nourishment, and had been interred, without certificate, in a coffin with the body of a young woman, about a fortnight since, the body was exhumed by order of the coroner, on Thursday last, for the purpose of a *post-mortem* examination being made, and an inquest was held the same evening. The inquiry lasted over three hours and a half. Three medical officers were first examined. The evidence of these gentlemen went to show that the child when born appeared very strong and healthy, and that it might have died from the want of proper nourishment. The child never had a drop of milk given it during its lifetime, and was fed with nothing but what the old women denominated "pap," made by pouring boiling water over a little white bread, and then sweetened with sugar, and given to the baby; and this, in the opinion of the medical men, was improper food for it: the mother's milk was the most natural food for an infant, and when deprived of that they should come as near to it as possible (which the milk and barley-water would be), as all milk would be too strong a curd for it. Some of the inmates of the house were examined, and corroborated the fact that the child had been fed with the sort of food stated, and nothing else, one of them observing, "It first had a little gruel given to it, but very little of that." Upon going to the surgeon for a certificate to register the child the following was given for the purpose of entering in the registrar's books:—"Ellen Horsfall, seventeen days old, last birthday; died Jan. 20, 1848; cause of death, inanition, or want of proper nourishment, the mother being ill of puerperal peritonitis. T. A. Bottomley, pro T. R. Tatham." The registrar receiving such a certificate very properly refused to register it until further inquiry had been made, well knowing that he durst not register it according to the surgeon's certificate. Mr. Tatham stated at some length the manner in which his various orders had been disobeyed. Several of the guardians were in the room, and Mr. A. Walker attempted to explain. Mr. Tatham stated, that in consequence of the utter defiance to his orders for more than twelve months, he had during the last six months taken notes of the particular instances, which filled several foolscap sheets, and which he had forwarded to the poor-law inspector, being quite tired of complaining to the board of guardians. The jury unanimously came to the following verdict:—"That the said Ellen Horsfall died from natural causes; and that the orders of Mr. Tatham, the attending surgeon, respecting the food of the said Ellen Horsfall had not been followed; and that the death of the said Ellen Horsfall may have been accelerated thereby. And the jury cannot separate without calling the attention of the poor-law guardians to the fact, that the orders of the medical officer are not attended to in regard to the diet of the sick poor, in this as well as in other cases."

Obituary.—On the 4th inst., at Smith's-place, Leith-walk, Edinburgh, Matthew Buchan, junior, M.D.—On the 5th inst., at Dalkeith, of typhus fever, John Hunter, M.D.—On the 7th inst., at Falmouth, of inflammation, William Paterson Banks, M.D., Royal Navy, surgeon of her Majesty's ship Crane, aged thirty years.—On the 31st ultimo, at Farningham, Kent, of chronic disease of liver, Edward John Ryan, Esq., surgeon, aged 47, to the great grief of his bereaved widow, and deservedly lamented by many friends, who justly appreciated his talents and his worth.

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NOTICE.

SUBSCRIBERS IN ARREAR are respectfully requested, in conformity with the terms of their subscriptions, at once to forward their remittances to the OFFICE.

TO SUBSCRIBERS.

☞ The subscription for the stamped edition of the *Medical Times* is 15s. for the half-year, and £1. 5s. for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfrae.

MORTALITY TABLE.

For the Week ending Saturday, Feb. 12, 1848.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1324	1107
SPECIFIED CAUSES...	1323	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	313	184
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	41	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	152	138
Diseases of the Lungs, and of the other Organs of Respiration	315	225
Diseases of the Heart and Blood-vessels.....	32	39
Diseases of the Stomach, Liver, and other organs of Digestion	73	62
Diseases of the Kidneys, &c.	11	9
Childbirth, Diseases of the Uterus, &c	15	13
Rheumatism, Diseases of the Bones, Joints, &c. ...	6	8
Diseases of the Skin, Cellular Tissue, &c.	3	1
Old Age.....	71	79
Violence, Privation, Cold, and Intemperance.....	26	31

TO CORRESPONDENTS.

Dr. Bushnan's Report on German Medical Science will appear in our next.

Dr. Gavin Milroy's letter has been received.

Dr. Willshire's Lecture will be given in our next number.

The Berkshire Hospital Reports, from its Surgeon, Mr. Bulley, have been received.

Mr. Corfe's communication is in hand.

Cooper's Surgical Lecture in our next.

"Mr. J. Nutford."—The "suggestions" are under consideration, but we are unable, from a large number of communications is hand, to procure our correspondent an *early* insertion of his paper.

"Mr. S. Francis."—The delay was unavoidable, but, as we stated the cause through a private channel, we hope it will be deemed satisfactory.

"An Observer" informs us that "were it not for the unholy compact existing between certain chemists and druggists, having very showy establishments, and some metropolitan physicians, the mere retailing of physic by the former would produce but very insignificant returns. The College of Physicians engages to punish those of its community who debase their profession by forming compacts with druggists, for pecuniary advantage. Their regulation is a mere *brutum fulmen*, which is despised; and the consequence is, that at the present time there are numbers who debase the physician's *honorarium* by amalgamating with it a portion of the druggist's profit." Our correspondent imagines that the evil to which he adverts exists to a great extent in this metropolis.

"An Old-fashioned Apothecary."—The remarks on the progress of chemistry are not suited to our columns.

"Auditor."—Mr. R. D. Grainger formerly lectured at the School of Anatomy in Maize-pond.

"Pathologist."—The disease is generally complicated with a congenital defect of the anterior part of the organ, and of the corresponding portion of the abdominal parietes.

"Dr. E. B. Hickson."—The Master of the Apothecaries' Society.

"Chirurgus, Sheffield."—We should feel obliged by receiving the promised paper on "The Sanitary Condition of Rural Districts."

"Scotus."—The account of the farewell banquet to Mr. Syme prior to his departure from Edinburgh has been received.

"S. S."—The concluding part of the paper has arrived safely; we shall not fail to atteud to the requests made.

"Obstetrician."—The credit of bringing chloroform into use as an anæsthetic agent is certainly due to Dr. Simpson, of Edinburgh. Very confused notions were entertained of its virtues prior to his discovery.

"Dr. Henry" is thanked for his communication.

"A Hater of Humbug" is requested to state more clearly the facts to which he refers. A brief and well-arranged statement would be acceptable.

"Hippocrates, Camden-town."—The publication of the letter would be productive of no benefit to the profession. We have, therefore, as requested, left it at our office.

"A Country Subscriber."—The publisher is Mr. Renshaw, Strand.

"Zeta."—There is no difficulty whatever about the case. We do not prescribe in our pages. Consult some respectable practitioner in the neighbourhood.

The papers from George Town, Demerara, have been received, and we beg to thank our friend there for his kindness,

"A Subscriber, Glasgow."—The disease is endemic in some of the western counties of Scotland. It is propagated, like syphilis, by the direct application of contagious matter. It has not yet been thoroughly investigated.

"Truth-seeker."—The communications of correspondents, when not accepted for publication, are not returned except by especial request. It would cost us too much trouble.

"Medicus."—We know nothing of the persons who engage to furnish candidates for the diploma of the College of Physicians with sufficient knowlege to enable them to obtain it "in the short space of three months."

"A General Practitioner."—The debt cannot be recovered by law.

"Celsus."—1. Yes. 2. Not without having an indenture of apprenticeship.

"Amicus" is not quite so good a friend as he would have us think he is. We beg to decline his offer.

"X. Y. Z."—The information sought shall be given next week.

"Fair Play."—We think that sufficient notice has been taken of the matter.

"An Old Subscriber and Friend."—The complaint made is not unmerited, and deserves attention. We shall advert to it.

"Mr. J. D. Macdonald," on the office of the Cochlea, &c., has been received.

"A. B. Haworth."—We cannot say how many prosecutions have taken place, nor is it a matter of much consequence. The Company has the power of punishing persons who practise as apothecaries without its licence. To question 4—Yes.

"M. D., Edinburgh."—The Museum is open to visitors the first four days in the week, from 12 to 4, except during the month of September. On Friday for gentlemen studying in it; on Saturday, from 10 to 1, to gentlemen desirous of comparing specimens with those in the Museum.

"A Medical Student, St. George's Hospital."—1. The French metrical system, we believe, was given up rather more than thirty years ago, and a new form then adopted. There are four systems of weights in common use, including that of the "Codex Medicamentorum." 2. A gramme is rather more than fifteen grains avoirdupois.

"Dr. Wigglesworth, Swansea."—Letter received.

"Justus."—A proper notice must be given, and the time will be specified.

"M. D., Ashton."—A surgical diploma from Scotland or Ireland gives the possessor as much right to practise surgery in England as the London College.

"Guhelmus."—We think the certificates will be received at the College, as being in accordance with the regulations.

"Quid Pro Quo," on the Croydon case, received.

"A Subscriber, Halifax."—The work on "The Horse," published by the Society for the Diffusion of Useful Knowledge, is a very good one.

"Mr. J. O'Connor, St. George's Hospital," writes us as follows, in reference to the fatal application of chloroform at Newcastle:—"On looking over the evidence I find that Dr. Meggison used cold water, as directed by Dr. Snow; and here I would remark that no man, I believe, has administered chloroform so frequently as Dr. Snow, who states that he is not aware that any disease or any state of the general health forbids the inhalation of ether or chloroform. It is impossible to say what symptoms were present to warrant Dr. Meggison in bleeding and administering brandy. This I feel assured of, from my knowledge of him and his professional talent, he did not do so in ignorance of his profession. How many men can write beautiful reports of cases, and lay down laws of what should be done, but how very few practise! Yet, if those selfsame writers were placed in a critical situation, would they follow out to the letter the laws and instructions which they publish? When they have but little time to think, when the life of a fellow-creature depends on their speedy decision, and promptness alone the watchword, I ask, do they follow closely to the letter their nice reports so carefully made? In the case under discussion Dr. Meggison and his assistant were alone the witnesses of the exact symptoms which presented, and which called for the means used to restore life. It fell to my lot to assist Dr. Meggison in his very extensive practice during the summer of 1847, and I had many opportunities then of judging of his sound professional knowledge and good judgment. If diplomas are a test of a man's abilities, and received as proofs of professional knowledge, then, indeed, Dr. Meggison can well boast of many awarded by our first courts of examiners. He studied for many years in Edinburgh, also at the London Hospital; as a practical surgeon, very few more dexterous with the knife; and as a physician, the many eminent men by whom he is surrounded are aware of his superior education, while his wide field of practice must speak trumpet-tongued of his skill. I would here beg to ask if many more fatal cases would not occur from the use of these anæsthetic vapours, were it not for the great loss of blood usually attending operations? In the operations performed under Dr. Meggison, little or no blood was lost; perhaps some of our professors will think well on this point. I also find, in a recent number of the *Lancet*, a short editorial remark on the case. Trusting to your love of justice, I ask a corner in your next number; while the attempt to defend a professional brother will, I am sure, be sufficient excuse for trespassing on your valuable time."

"A Correspondent" informs us that, "for some months past, a Mr. Chapman has been soliciting relief from the members of the medical profession. He called on me some weeks ago—I think some time in December last—showing me a list of subscribers: some having given him £1, others £2, and one as much as £5. Being myself but young in practice, I placed my name on his list, and opposite to it *five shillings*; he took the five shillings. Last week Mr. Chapman called on a physician of my acquaintance to beg of him. My name appearing on the list of subscribers induced him to inquire of me what I knew of Mr. Chapman. I said I knew nothing more than the tale he told of himself, and, believing it, had given him *five* shillings; upon which the physician told me that the sum had been altered—the 5 into a 0, and that £1 appeared opposite my name. This alteration could not be from mistake, or with any honest intention on the part of Mr. Chapman, but evidently with a hope to deceive others, and to procure larger subscriptions—the fact appears to me to speak for itself without further comment. Mr. Chapman may be in want—may have met with misfortune—but, as he appears to adopt dishonest means to procure subscriptions from others, I think a caution to the profession, through a notice in your journal, may put a stop to his efforts at imposition. I trust the substance of this communication will be sufficient apology for the length of it, and that you will consider it worthy of some notice in your next number."

"Dr. Meggison" complains to us that Dr. Simpson did not, before publishing his article on the death of Hannah Greener, request him to furnish the facts of the case. He says, in reply:—"1. I only got Hannah Greener to take about a teaspoonful of brandy, which she swallowed, although with some difficulty. There was not the slightest symptom to indicate choking. 2. In the state in which she was when I administered the brandy, it was impossible for such enormous congestion of the lung as was found, to be occasioned by the brandy; for she had no pulse. Sir John Fife, Mr. Eccleston, surgeon to the Cumberland and Westmoreland County Lunatic Asylum, and Dr. Glover, had never seen such lungs as the unfortunate patient presented, except the last-named gentleman, who had seen them only in animals poisoned by chloroform. 4. Professor Simpson states that in animals poisoned by inhaling chloroform, in Edinburgh, the blood was coagulated in the right side of the heart, whereas in this case it was fluid. Chloroform appears to be a different thing in Edinburgh from what it is everywhere else. Besides, from the report in Dr. Bennett's journal, the Edinburgh experience of its poisonous operation appears to be very limited. Mr. Wakley found in his experiments enormous congestion of the lungs; and I presume from his mode of speaking that the blood was fluid. It was so in several of Dr. Glover's experiments. Dr. Simpson remarks that congestion of the brain occurs in asphyxia, and not in cases of poisoning by chloroform; but the congestion of the brain is a mechanical effect arising from the congestion of the lungs. In some of Dr. Glover's experiments the membranes of the brain were congested, and bloody spots in the substance of the brain itself."

Letters and communications have also been received from Mr. J. Nutford; Mr. S. Francis; An Observer; An Old-Fashioned Apothecary; Auditor; Pathologist; Dr. E. B. Hickson; Chirurgus, Sheffield; Scotus; S. S.; Obstetrician; Dr. Henry; A Hater of Humbug; Hippocrates, Camden-town; A Country Subscriber; Zeta; A Subscriber, Glasgow; Truth-seeker; Medicus; A General Practitioner; Celsus; Amicus; X. Y. Z.; Fair Play; An Old Subscriber and Friend; Mr. J. D. Macdonald; A. B. Haworth; M. D., Edinburgh; A Medical Student, St. George's Hospital; Dr. Wigglesworth, Swansea; Justus; M. D., Ashton; Guhelmus; Quid Pro Quo; A Subscriber, Halifax; Mr. J. O'Connor, St. George's Hospital; A Correspondent; Dr. Meggison; Mr. Dinham, Taunton; Mr. Creasser, Driffield; Mr. Marsh, Marksborough; Mr. Statten, Wickhambrook; Mr. Lamax, Sutton-in-Ashfield; Mr. Smith, Halifax; Dr. Gibson, Rothesay; Mr. Adamthwaite, Stanhope; Mr. Evans, Widcombe; Mr. Nichol, Crook; Mr. White, East Grinstead; Mr. Parnell, Neath; Dr. Barker, Dumfries; Mr. Cooke, Morreston; Mr. Hyde, Bloxham; Mr. Caudle, Brighton; Mr. Oxley, Askerne; Mr. Hadden, Skibbereen; Mr. Pastgate, Kilham; Dr. Furlong, Wexford; Dr. Burke, Killaloe; Dr. Green, Lifford; Dr. Sandiford, Ballyvourney; Dr. Fenton, Alyth; Mr. Halley, Wingate; Mr. Hall, Crick; Mr. Condell, Baslow; Mr. Semple, Dudley; Mr. Jordan, Manchester; Mr. Williamson, Penrith; Mr. Somerset, Marlborough; Mr. Holdsworth, Ripley; Mr. Eccles, Preston; Mr. Howard, Linton; Mr. Patten, Keyingham; Mr. Baker, Southampton; Mr. Fowke, Ventnor; Mr. Kiddell, Sheerness; Mr. Coleby, North Walsham; Mr. Pearson, Woolton; Mr. Lasaetter, Uttoxeter; Dr. Page, Newmarket; Dr. Palmer, Dunfanaghy; Mr. Barrow, Settle; Mr. Gray, Liverpool; Mr. Bloxham, Hales Owen; Dr. Bryden, Wadhurst; Mr. Macnamara, Corofin; Mr. Cribb, Bishops Stortford, &c.

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No. 439. SUMMARY. Feb. 26.

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ORIGINAL LECTURES.

LECTURES ON SOME OF THE MORE IMPORTANT POINTS IN SURGERY.

By G. J. GUTHRIE, Esq., F.R.S.,

Read by Mr. HANCOCK, Surgeon to the Charing-cross Hospital, and Lecturer on Anatomy and Physiology at the Royal Westminster Ophthalmic Hospital.

LECTURE IV.

ON WOUNDS AND INJURIES OF THE CHEST.

Typhoid pneumonia—symptoms and treatment; Dr. Hunter and Dr. Stokes on typhoid pneumonia; typhoid pleuritis; occurrence of pleuro-pneumonia after amputations; Mr. Guthrie's opinion that it depends on inflammation of the veins, and absorption of purulent matter; latent or chronic pleurisy; empyema; hydro-thorax; causes of empyema; symptoms; pathological condition of the chest after the cure of empyema; Dr. A. T. Thomson's case; results of percussion and auscultation; treatment.

Inflammation of the chest has been hitherto considered as accompanied by inflammatory fever as an essential character, but this is by no means always the case. In large cities, and amongst troops after hard service, in which they have been subjected to much privation, and in certain epidemics, the accompanying fever often partakes of a different character, becomes infinitely more dangerous, and requires a different mode of treatment. These modifications of disease I have known from my earliest years, in London, in North America, in Portugal, and in Spain, in the two last of which countries they are very fatal. They appear to prevail much in Dublin, and Drs. Stokes (a) and Hudson (b) have given the best account of them with which I am acquainted, under the name of typhoid pneumonia, constituting a disease formed of a local inflammation with general symptoms of a low asthenic type of fever, combined with those of marked derangement of the stomach, intestines, or liver, as shown by a dry black, or red black, or brown tongue, offensive breath, diarrhœa, vomiting of a dark-coloured or greenish fluid, watery or sanious expectoration, great thirst, headache, a feeble and quick pulse, low delirium, and great prostration of strength. It was marked, on the banks of the Guadiana, by the discharge of lumbrici by the mouth and by the anus. Whenever I have seen this disease it has always appeared to arise from peculiar circumstances, and to disappear when they ceased to exist: such as great privations and exposure to cold and fatigue, the use of ardent spirits without sufficient food, bad air, or other depressing causes. It is sometimes under such circumstances epidemic. In these cases, as far as my recollection of them permits, as I have not seen them lately, I should say the pneumonic affections were always secondary or consequent on the idiopathic fever. The general fever is typhoid, the local inflammation latent, and the symptoms of it masked. It may be complicated with a similar affection of the stomach and intestines; it may occur in cases of erysipelas, after diffuse inflammation of the cellular membrane, after wounds or injuries attended with large secretions of purulent matter, after phlebitis, and with other complaints. Dr. Stokes especially draws attention to it in connection with delirium tremens from excess of stimulants. Whilst the symptoms of low fever are general and well marked, those of the latent affection of the lung are not so prominent or even observable. The patient complains but little, and sometimes not at all, of his chest, until attention is drawn to it by a slight cough and difficulty of respiration, attended by a character of countenance which usually indicates embarrassment in the functions of the lung. It may be brought on by a common non-penetrating injury of the chest.

In typhoid pneumonia general bleeding, if admissible, is to be had recourse to with extreme caution, even in young and robust persons. Local depletion is oftentimes useful, and, perhaps, ought alone to be relied upon. The great dependence is on calomel and opium; and, after such local depletion as may be thought advisable, counter-irritation by blistering, and the administration of stimulants, such as camphor, ammonia, and wine, in small and repeated quantities. Mild aperients only should be employed, and anodyne injections are frequently useful. Whilst auscultation has thrown a clear and steady light on the nature of the mischief which is going on, it has added little or nothing dissimilar to the practice pursued some forty years ago. The nature of the hepatization or solidification which takes place in the lung in typhoid pneumonia has given rise to some difference of opinion among morbid anatomists, who incline to believe, from the rapidity with which it takes place, and is sometimes as quickly removed, that it depends more on passive congestion, and on a typhoid alteration of the state of the blood, than on an altered action in the vessels of the part. This opinion is maintained by Dr. Hudson in his very able paper on typhoid pneumonia, in the seventh volume of "The Dublin Journal" for 1835; but it does not seem to me to be supported by his dissections, unless it be generally admitted that grey hepatization, and the third stage of disease of the lungs in pneumonia, mean simply congestion. He concludes his paper by the following good practical remarks:—"The epidemic constitution of the disease, and its pathological condition (connected as both seem to be with an altered state of the blood), often combine to render these cases prone to run into gangrene; and that they are otherwise tedious and intractable, and generally require the early and liberal use of stimulants, as well as the prompt and cautious employment of the most active means for subduing inflammation; and I think the necessity for the former may be stated to be in proportion to the degree of prostration, and the extent of passive congestion as indicated by dulness on percussion, and nullity of all respiratory phenomena."

Dr. Stokes, in his excellent work "On Diseases of the Chest," page 342, says:—"The terminations of typhoid pneumonia are various. It may rapidly produce a fatal hepatization; it may form a gangrenous abscess, or induce a chronic solidity of the lung, passing into the tubercular condition." His practical conclusions are extremely valuable, as this disease often prevails in Dublin. They are—1. That general bloodletting is to be used with extreme caution. 2. That the mercurial is in general to be substituted for the antimonial treatment. 3. That counter-irritation may be employed at an earlier period than in simple pneumonia. 4. That the vital powers are to be carefully supported. 5. That as gastro-intestinal disease frequently complicates the pneumonia, close attention must be paid to the abdominal viscera. 6. That stimulants are to be used with greater boldness and at an earlier period.

When the patient survives the imminence of danger in which he is placed by the attack of the disease, and the expectoration becomes copious, with great emaciation, quick pulse, and hectic fever, a slight infusion of senega with ammonia, or of cinchona, with a mild and well-regulated diet, and change of air and climate, answer best in aiding recovery.

A typhoid pleuritis is presumed to exist, as a distinct disease from typhoid pneumonia, although the analogy between them is admitted to be close; like it the disease is latent, and oftener pointed out by the sinking of the powers of life, than by any new suffering. The signs of effusion may be discovered on auscultation, and the treatment is essentially similar, blistering and counter-irritants being, perhaps, more useful, if time be granted for their application.

I was the first, I believe, to draw attention in my work on gunshot wounds, published in 1815, to the connection which existed between the latent disease of the lung which may be called pleuro-pneumonia, somewhat resembling these complaints when of a typhoid character, and to its occurrence after the operations for amputation; for although affections of the liver and even lungs, following injuries of the head, had been observed by Morgagni, Valsalva, Quesnay, and others, they were always considered to be accidental circumstances. I have also related or referred to cases of this disease, and of purulent deposits, in the third edition of that work and its appendix. It is evident that I then considered these inflammations of the lung, and purulent deposits in other parts of the body, to be dependent on the same cause, and I suspect they are both more intimately connected with inflammation of the veins, and the absorption of purulent matter, which may be deposited in the cellular texture of the body with impunity for a time, but which in the lung or pleura is followed

(a) Stokes, Wm. "A Treatise on the Diagnosis and Treatment of Diseases of the Chest." Part I., p. 338. 1837. Dublin.

(b) Hudson, Alfred. "Observations on Typhoid Pneumonia," vol. vii. for 1835, p. 372, of "Dublin Journal of Medical and Chemical Science."

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by low inflammation, ending in death. The treatment which, as far as I know, has been hitherto almost always unsuccessful, ought apparently to be conducted on the same principles as those which are adopted in typhoid pneumonia, or typhoid pleuritis, although the dissections I have made, or am acquainted with, authorize my saying that these two complaints have been so combined as to prove that in this particular stage they are not distinct affections. Mr. Rose drew attention to these depositions and affections of the lung, after injuries and operations, in a paper read before the Medico-Chirurgical Society in 1828, thirteen years after my first publication, and M. Marechal did the same thing in Paris, in the same year: both being one year after the publication of the third edition of my work "On Gunshot Wounds," and without adding anything to the facts I had stated, or to our knowledge on the subject; and it is a matter of surprise to me, that Dr. Townsend, in his able article on "Empyema," in the "Cyclopædia of Practical Medicine," should have noticed the labours of Mr. Rose and our continental brethren, without referring to mine which preceded them by so long a period—a point of no consequence, further than it may as well be known that the science of medicine is indebted for this fact to my record of the practice of the Peninsular war. Andral has been led to believe that, "during the period of profuse discharge, pus is taken into the circulation, and subsequently separated from the blood, as mercury, when injected into a vein, is found to deposit its globules in different parts of the body." It is impossible to say, even if this opinion should be correct, what may be the cause which leads to its deposition in particular parts. I have supposed it to be from its giving rise to irritation in one that is weak; but that is not an explanation, although it may be the fact.

Pleurisy is said to be latent or chronic, when a consequence of acute disease insufficiently or incompletely treated, and not a primitive complaint. It is marked more by oppression of breathing than pain, and auscultation proves the nature of the complaint. It may exist for weeks and months, and continue even for a year, wearing out the patient until he becomes hectic and thoroughly emaciated, suffers from empyema, and dies, perhaps, by dropsical infiltration or by suffocation.

The cases which commonly fall under the care of the physician, which render an operation necessary, are those in which the acute inflammation was neglected in its first stages, or not met by means sufficiently energetic, or from some recurrence of the complaint.

Empyema, from ἐν, *in*, and πυον, *pus*—a name given by the ancients to all abscesses formed in the cavities of the trunk, and by later authors to all collections of fluids and to the operation for evacuating them from the cavity of the chest. Empyema is not a special disease, but the result of another; commonly of acute or chronic pleurisy, or of injuries of the chest, which give rise to inflammation, ending in suppuration. When it occurs from the effusion of a serous fluid, constituting a local dropsy, it is usually the result of disease of the heart, or of the great vessels, and is accompanied or preceded by symptoms indicating the existence of these complaints; in which case it is not likely to be benefited by any operation. The disease is then denominated hydro-thorax. The serous fluid is generally transparent, although more or less tinged with blood, when thrown out in persons who die within a few days after receiving a wound of the chest. It may, and does occasionally, contain, in these cases, a large quantity of blood; but the early effusion of blood is not uncommon in very acute cases of pleuritis. It is usually more or less turbid when the result of ordinary inflammation, although the presence of albuminous or purulent matter is not constant. Whether colourless, transparent, turbid, or purulent, it remains free from fetor, unless gangrene has occurred internally, or some communication with the atmosphere has taken place by an external opening.

Whilst the fluid remains transparent, the appearance of the pleura is little changed; but when it has become turbid in any great degree, or flocculent, or purulent, the pleura has lost its natural appearance. In its simplest character, when the fluid is puriform, and particularly if the inflammation has not been very active, it is covered with a layer of whitish inorganic sediment, which can be scraped off by the scalpel. This is sometimes quite red, as if loaded with blood which had been deposited upon it. Wherever pleuritic symptoms continue beyond the ordinary period of about three weeks, or, after a temporary abatement, are followed by those of effusion, which are not in turn removed, the occurrence of empyema may be suspected.

Empyema may form from a pulmonic abscess bursting, or a gangrenous spot being detached and falling into the cavity of the pleura. An abscess in the liver or other parts may also communicate with the pleura, and abscesses—formed from injury or otherwise—in the wall of the chest may also give rise to it. It is usually, however, caused by acute inflammation, by penetrating injuries, and by the introduction of foreign substances. It must, however, be borne in mind that, when it occurs from wounds, the external opening must have healed, or the complaint would be simply a wound in the chest, with discharge from the cavity of the side affected. A true surgical case of empyema following an injury of the chest, in which the wound has healed, is not to be ascertained but by the same means as a medical case arising entirely from internal causes, unless the cicatrix should indicate the presence of matter behind it.

The symptoms by which the termination of inflammation in effusion may be known, are dyspnœa or difficulty of breathing, which varies, being greatest when the effusion has taken place rapidly, less when it has been gradual; inability to lie on the unaffected or sound side, arising in all probability from the weight of the fluid: which supposition may be regarded as correct, from the circumstance of persons being able to lie on the affected side, after the operation has been performed and the fluid evacuated, although it should be replaced by air in consequence of the lung being unable to resume its natural position. In some instances a person has been known to lie on the affected side, and in other cases persons have at last accustomed themselves to lie on either side; but they are exceptions to the general rule. When the effused fluid has filled one side of the chest, the affected side is evidently enlarged. It is permanently dilated, and this can be distinctly seen when the dilatation does not exceed half an inch, measuring by a tape from the spinous process of a vertebra behind to the centre of the sternum. The ribs are nearly if not quite immovable, and partially raised, offering a strong contrast to the active motion of the ribs of the other side. The intercostal spaces in these persons may be more or less filled up, and even protruded, rendering the whole surface smooth and soft. In some very severe cases the external parts become œdematous, so that the ribs cannot be felt; and this sign, although not always present, is certainly pathognomonic when it takes place at a late period of the disease. When the effusion is into the left side of the chest, the heart is frequently pushed over with the mediastinum to the right side, and its pulsation can be seen and felt to the right side of the sternum, or it may descend with the diaphragm into the epigastrium, changes which are not so extensive or remarkable when the effusion is into the right side, as the liver materially impedes the descent of the diaphragm, and the heart is already in the left side, in which it is sometimes raised rather than depressed. Dr. Stokes says, and Dr. Chambers confirms the assertion, if the hand be placed over the affected side, whilst the patient speaks with a tolerably loud voice, and a strong vibration is felt in the part, the case is not one of empyema; but this is as uncertain a sign, and as little to be depended upon, as the dulness on percussion which sometimes takes place under the sternum in empyema. The cough and expectoration offer nothing peculiar, unless a communication exist between the lung and the cavity of the chest, when the expectoration in general becomes very fetid and disagreeable. The febrile symptoms depend on the activity of the previous disease, and the rapidity with which the effusion has taken place.

Broussais and Andral say that night-sweats never accompany the hectic fever of empyema, unless there be tubercles in the lungs or pleura—a remark which cannot be depended upon, although it cannot, perhaps, be disproved; the differences which may be observed between the hectic of phthisis and that of empyema being according to the rapidity with which persons labouring under empyema are cut off, unless the disease becomes essentially chronic, when it may exist for months and years.

Two symptoms have been insisted upon by older authors as distinctive of effusion in the chest, which more modern ones are disposed to doubt. One is an œdematous swelling of the back, the other a protrusion of the intercostal spaces. A third may be added when the effused fluid is blood, which is that the œdematous swelling becomes ecchymosed, or red, or bruised looking, from the effusion of blood into the cellular membrane beneath the skin, even the whole space occupied by the blood within. That the first two symptoms do assuredly indicate the presence of pus cannot be doubted, and that the third is a sign that the effused fluid is blood, has not been disproved, but it must be borne in mind that they are late, not early, symptoms, and that operation should not be delayed until they are present, if other signs should appear to demand its performance. The puffy swelling was known and remarked upon by Morand a hundred years ago. Valentin, in his "Recherches Critiques sur la Chirurgie," published in Paris in 1774, was the first to notice the ecchymosis of the side and back when the chest was full of blood—a sign which Larrey particularly insists upon—one which certainly does not appear so early as to be distinctive, when other symptoms exist which almost render it certain. The swelling does not, I apprehend, arise from transudation of matter through the pleura, but from irritation transmitted through it, as in any other deep-seated abscess. Dilatation of the chest is usually an early symptom, although a considerable effusion may exist without it, or with a slight elevation of the intercostal spaces. When the complaint is distinct, these spaces are elevated to a level with the ribs, so that the surface becomes perfectly smooth and equal. The protrusion of these spaces so that they become prominent is a very rare occurrence, although frequently alluded to. Effusion, indeed, of serous fluid to a considerable extent, so as to displace the heart, may take place without the intercostal spaces being elevated; which is only believed to occur when the intercostal muscles have become paralyzed. When the matter is evacuated, their muscles recover their tone, and the intercostal spaces reappear.

It has been already stated that, when one lung only is diseased, *puerile* respiration takes place in the other. The unaffected side of the chest is perhaps dilated, the lung distended, and the mediastinum yields to the impression.

In all cases of empyema, in which the lung is so bound down by adhesions that it cannot be expanded by the continued process of respiration, a cure can only be accomplished by an alteration of the form of the affected side of the chest, by which its cavity is diminished, and often nearly obliterated; this is an effort of nature. Larrey was the first to prove this distinctly, and I have had very many opportunities of confirming that fact in all stages of the disease, from its commencement to its cure, or the death of the sufferer. The pleura changes its character, becomes so thick as materially to diminish the cavity, the diaphragm ascends, the heart leans to the side, and in many instances, the spine curves, the ribs thicken and become flatter, and close in upon each other, abolishing the intercostal spaces. Hence the

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Wendlestadt, ten years after a fistulous opening had taken place in his chest, from purulent deposit, found that the cavity would still hold a quart of warm water. I have seen it hold as much, after one, two, three, and four years. In a case under the care of Dr. A. T. Thomson, the operation was performed on the left side on the 1st of December, 1837; fifty ounces of pus were evacuated; the wound continued to discharge. On the 14th of February, 1841, he was attacked with acute bronchitis, and died on the 17th, three years and ten days after the operation for empyema had been performed. As this case is one of a late date, when attention had been fully drawn to the subject, the essential parts of the dissection-report are transcribed. Emaciation considerable; the left side greatly flattened; spine curved to right side; heart lying over the spine; sound lung weighed two pounds four ounces two drachms; left or affected lung only ten ounces seven drachms. The space at the bottom of left thoracic cavity contained twelve ounces of fetid purulent matter, and a piece of carious rib an inch long and half an inch broad. Pleura coated with a false membrane, nearly half an inch thick, and of cartilaginous firmness; the free surface was black; ribs nearly an inch and a half in thickness; left lung adherent behind through its whole length, and below to the diaphragm. This patient lived long enough to permit the almost total obliteration of the pleural cavity, but he could not have recovered unless the piece of carious rib had been removed by an operation.

Percussion gives from the sound side a clear, nay a clearer and more hollow sound than usual, resembling that from an empty cask; whilst from the affected side it is as dull as the sound from a full one, when struck with an equal force. When the fluid is small in quantity, or confined to any one spot, the dulness is confined to that spot. But these are not usually cases the consequence of surgical disease.

Auscultation shows that the ordinary sound of the breathing is null, although at the root of the lung behind some little bronchial respiration may be heard, and even some slight mucous rhonchus from the same spot; but these niceties of auscultation will never be sufficient to obscure the estimate made from the other symptoms. When the lung happens to adhere to the wall of the chest, some difficulty may arise temporarily, but not when the disease is otherwise well marked.

Treatment.—As long as the febrile symptoms consequent on the inflammation continue to any extent, medicines will be of little avail, and counter-irritants should be avoided. When they have subsided, purgatives and diaphoretics may be tried, in combination with tonics and a light, but good, nourishing diet. Blisters applied frequently upon a large surface often do good; and Baron Larrey preconizes the use of moxas, which are not probably as useful, although they may assist in the intervals of the application of blisters in chronic cases. When these means fail, the operation must be resorted to.

CASE 2.—A youth, aged eighteen, in February, 1846, struck the right side of the chest in falling from a chaise, and a few days after was attacked with pain in the part struck, with urgent dyspnœa and fever. Cough, expectoration, and an obtuse pain in the right mammary region, increased by pressure and forced inspiration, soon ensued. He was admitted into the Charing-cross Hospital in April, under Dr. Shearman. He stated, that for five weeks from the supervention of the cough, the expectoration was scanty, the pain and dyspnœa not urgent; but just before his admission all the symptoms increased, still, however, referrible to the right side. The cough became urgent; the expectoration, profuse, and at first rusty, soon changed to a dark-greenish hue, was very fetid, voided in masses, and tinged with blood. The pain was of a dull, dragging character, but soon ceased. This abscess from pain (five days from the accession of the pneumonia, and two days before admission into the hospital) was consentaneous with the change in the sputa, from rusty pneumonic expectoration to that of sphacelated lung.

He was in the hospital eight days, presenting the following symptoms:—Cough urgent; expectoration copious, though dyspnœa and thoracic pain were absent; the sputa purulent, and containing portions of slough; it varied in tint from a greenish yellow to a mahogany-brown, and was most fetid, as was also the breath; great constitutional derangement; hectic; turbid urine; tongue dry and red; no cerebral symptoms, nor dropsy.

He left the hospital materially relieved, and became an out-patient, paying every attention to his diet and regimen. About the middle of September, the cough and expectoration increased; the latter again became dark and fetid; the strength was prostrated, and several attacks of hæmoptysis occurred. This aggravation was ushered in by an attack of hæmoptysis, at which time half a pint of blood was expectorated. He lost, from time to time, during the month of October, an ounce or two of blood; but this was afterwards restrained by acetate of lead. At this time there were symptoms of fever; quick pulse, and great general debility; appetite bad; urine loaded with yellow lithates, not albuminous; bowels irregular; the liver and heart healthy.

On the 22nd of November, the signs remaining much the same, the following observations were made:—

1. *Physical Signs afforded by Inspection.*—On the right side: No movements of the ribs from the third to the fifth; below the fifth the ribs are but imperfectly acted on by the diaphragm; the whole side is flattened, and a slight depression exists under the left clavicle; the cartilages of the third, fourth, and fifth ribs are drawn down, and more oblique than usual. On the left side: The expansion is fully and equably performed; no flattening or deformity of any kind; the whole of this side is on a plane anterior to the right.

2. *Afforded by Mensuration.*—The diameter of the right side is two-thirds of an inch less than that of the left, in nearly every direction, save under the clavicles, where the difference is trivial.

3. *Afforded by Percussion.*—On the right side: A clear sound as far as the third rib, from which point downwards the dulness is so great that no demarcation between the lung and liver (as to sound) can be detected. On the left side: Clear on every part, even preternaturally so, indicating how fully every portion of the pulmonary parenchyma is permeated with air.

4. *Afforded by Auscultation.*—Over the right lung the respiration is puerile to below the second rib; there is a small râle occasionally heard, but no prolonged expiration. From the third to the fifth rib, on the same side, cavernous breathing, pectoriloquy, and gargling are audible, and most distinctly so at the inferior angle of the scapula. Over the left lung the respiration is puerile, otherwise quite normal; an occasional râle at the lower part at the back. A slight fluctuation perceptible on the right side on percussion; cardiac sounds normal; pulse 90 to 100; respirations 25.

The treatment of this case was of a tonic nature, with occasional counter-irritation. Easily digestible diet, avoidance of cold and violent exercise, diaphoretics, large doses of bark and sulphuric acid, with four grains daily of the iodide of iron, were the means employed, under which he has daily improved, and is now nearly well.

The patient is now (January, 1848) quite well, and able to prosecute his former occupation with ease.

MORTALITY OF EDINBURGH AND LEITH FOR JANUARY, 1848.—The mortality of Edinburgh for the month of January, 1848, amounted to 647—330 being males, 286 females, and 31 still-born. The mortality of January for the years 1845-6-7 was respectively 354, 409, and 537. The mortality of Leith for the past month amounted to 104—42 being males, 53 females, and 9 still-born. The mortality of January during the years 1845-6-7 was respectively 67, 72, and 101.

LECTURES ON GENERAL PATHOLOGY,

DELIVERED TO THE

FACULTY OF MEDICINE

DURING THE PRESENT YEAR,

By PROFESSOR ANDRAL.

Reported for the *Medical Times* by D. M'CARTHY, M.D. Paris, &c.

SECOND SERIES. CHAPTER VII.

SEMEIOLOGY OF THE NERVOUS SYSTEM.

We will, in the first place, turn our attention towards the cerebro-spinal apparatus, to the nerves which emanate from it, and finally inquire into the signs furnished by the organs of sense.

The cerebro-spinal functions may be modified by disease, and we have here to study the alterations of intelligence, of motion, or of sensation.

The intellect may be disturbed in maladies of the cerebral substance or of its envelopes, but not necessarily in all diseases of the cerebral pulp. Observation teaches us that the intellectual powers are chiefly modified when the cerebral surface is the seat of the disorder—a fact illustrated by almost every case of cerebral hemorrhage or softening. The intellect may be merely weakened slightly, or so much prostrated as to leave the subject in a state of complete indifference to all surrounding objects; or the mind may be disturbed, as in delirium, the co-ordinating link of the ideas being broken by disease. In cerebral hemorrhage we seldom meet with delirium at first, but it is not unfrequent after a few days, when local reaction has occurred. In ramollissement, particularly of the surface, delirium is a more frequent sign. Simple congestion of the brain often produces delirium, and, if the pressure on the cerebral substance be much increased, coma supervenes. We have also occasionally observed intermittent aberrations of intellect due to the presence of accidental productions in the cerebrum. Acute meningitis usually sets in with headache and vomiting, symptoms which are soon followed by a form of delirium remarkable from the agitation which accompanies it; after some time coma replaces delirium. In chronic meningitis, disorder of the intellect is noticed, and some cases of insanity present after death the characteristic anatomical appearances of chronic inflammation of the cerebral envelopes. The delirium of meningitis can be explained either by the propagation of inflammation from the membranes to the brain, or by sympathy of the cerebrum for the sufferings of its envelopes. When tubercles have formed in the pia mater, delirium often shows itself long before the symptoms of meningitis are manifest. We cannot refuse to admit the existence of one form of delirium, unconnected with any appreciable anatomical change, and resulting from the protracted excitement of intellectual labour, or the preoccupation of absorbing passions. It may also accompany many general disturbances of the system. Thus it arises from the debility produced by repeated hemorrhage, or chronic disease; also, during acute diseases, in subjects accustomed to the use of fermented liquors. The success of a narcotic or stimulant plan of treatment, and the complete failure of depletion in the latter case, prove that the delirium is not then due to inflammatory action. The prolonged influence of toxic agents, therefore, sometimes brings on delirium. We have mentioned fermented liquids: we may also add that the absorption of saturnine preparations has the same effect. This poison produces at first a vague and badly defined form of mental aberration, which soon becomes permanent and complicated by convulsive and epileptiform symptoms. Simple feverishness, in nervous subjects, or in those whose brain is kept in a constant state of activity, will often occasion delirium. Violent pain may also cause it. Some organs seem also to have the privilege of being in their diseases accompanied by this symptom. The womb is one of those. In some instances of painful and difficult menstruation the patients

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are delirious at each period. Others become partially insane at the beginning of pregnancy; and puerperal mania has been met with frequently by all those who have devoted much attention to the practice of midwifery.

Alterations of motion may be the signs of various affections of the nervous system. We will, in the first place, consider these alterations according to their seat, and afterwards we will study them with regard to their nature.

From the seat of modified motility we may sometimes detect the seat of the disease in the nervous centres: for instance, alteration of motion in both limbs of one side points, in the first place, to disease of the cerebrum, and in the second, to disease of the side of the brain corresponding to that side of the body in which motion has not been altered. This observation not only applies to the cerebrum, but also to the cerebellum, but does not hold good for the pons varolii. It might, it is true, be said that in some forms of meningitis, fluid pressing more upon one side of the brain than upon the other—in tumours occupying the membranes, or in meningeal hemorrhage—the same crossed effects of paralysis will be observed; but these cases are extremely rare: they constitute exceptions, and do not annul the diagnostic rule above established. It has been asserted that pressure of hemispheres downwards was more prone to occasion paralysis than lateral pressure, and hence that the seat of meningeal hemorrhage or effusion might occasionally be surmised; but the fact itself should not be admitted until further demonstration. In reading attentively the authors who have treated of these subjects, from Valsalva and Morgagni, down to our own contemporaries, perhaps twenty cases might be collected in which paralysis was found to exist on the same side as the anatomical change within the brain. Of these twenty cases, the greater number are not sufficiently detailed to be conclusive; but some five or six must be accepted. Morgagni relates one, in which he took every precaution to avoid error. In the "Archives" of July, 1846, M. Bouillon Lagrange published another, accompanied by every detail, and which seems perfectly authenticated. M. Blandin observed one case of the same description, in which the disease occupied the posterior lobules of the brain, and he explained the presence of paralysis on the same side by the anatomical fact mentioned by Gall, viz., that the fibres which run from the medulla oblongata to the posterior cerebral lobules do not decussate. This remark accounts, it is true, for cases like that of Professor Blandin, but leaves unexplained those in which the alteration occupied the anterior parts of the hemispheres. One limb only may be paralyzed from cerebral disease, and the signification of this modification of motion is the same as when the two limbs of one side are affected. It has been often asserted that, when the arm was paralyzed, disease of the optic thalami might be inferred, and alterations of the corpus striatum when the motion of the leg was modified. Some facts have been adduced in support of this theory, but a greater number militate against it. When the spinal chord is diseased, alteration of motion in the limbs shows itself in a different manner, both limbs, inferior or superior, being usually affected at or about the same time. In spinal affections the paralysis does not in general take place suddenly: when the four limbs are successively or simultaneously deprived of motion, we are compelled to admit the presence of anatomical change in both hemispheres, in the pons varolii or in the spinal chord. Alteration of the movements of the face indicates disease of the brain, or pressure upon the portio dura; when due to cerebral disorder, it takes place on the the same side as paralysis of the limbs. But when the leg and arm of one side are deprived of motion, and when the face is paralyzed on the opposite side, a double cause to these symptoms must be admitted to exist. Alteration of movement in the tongue is caused by disease of the brain; also in the eye: squinting, for instance, is often one of the symptoms of meningitis. Paralysis of the rectum and bladder is more frequent in maladies of the spine than in those of the brain, and usually follows loss of motion in the inferior extremities. It is also, in most cases, disease of the spine which occasions paralysis of the œsophagian, pharyngeal, or respiratory muscles. In apoplexy, however, pulmonary congestion and stertorous breathing are frequently observed. The muscular parietes of the abdomen are not uncommonly struck in diseases of the spine, and, at their incipient stage, by semi-paralysis or spasmodic contraction.

We now turn to the study of the alterations of motion, considered as to their nature. Mobility may be diminished or abolished, and it may be perverted; hence two great divisions, which we will successively examine.

When motion is diminished, incomplete paralysis is said to exist: the paralysis is complete when movements are altogether abolished—two conditions which may indicate disease of the nervous centres, of the nerves themselves, or of muscular structures.

In the first place, paralysis may be present without any appreciable anatomical alteration of the nervous centres: when lesions are detected, their nature is often pointed out by the mode of production of the paralysis. Thus, when loss of motion has taken place suddenly, and at once attains its highest degree, hemorrhage has most probably occurred in some portion of the nervous centres: if the hemorrhage or apoplexy be slight, the paralysis is not complete; the contrary occurs if the local damage is considerable. When paralysis increases, even very rapidly, after the first instant of its production, its cause is not to be sought for in hemorrhage, but in encephalitis, followed by rapid ramollissement. Another sign distinguishes the paralysis due to softening, from that produced by hemorrhage: it is contraction in the paralyzed parts—a symptom which may precede the loss of motion in ramollissement, but is never observed immediately after an apoplectic stroke; when it occurs in cerebral hemorrhage, it is only several days after the seizure, where local reaction takes place within the brain. Paralysis which comes on in very slow and gradual stages is due to chronic softening of the cerebrum, and may also be occasioned by the presence of tumours or morbid productions within the skull, pressure being thus produced upon the cerebrum. In these various cases, paralysis is partial. But diminution of mobility has, in one instance, a tendency to become general: observation teaches us that this general paralysis, which begins by difficulty of the movements of the tongue, chiefly observable in the articulation of words, which soon produces inability to raise the feet from the ground, afterwards impedes the motion of the arms, and finally attacks the rectum and bladder, is usually preceded or followed by loss of memory, and more or less derangement of the mental powers; it is very often met with in the insane, and was for a long time considered as belonging exclusively to the history of insanity; but more rigorous researches have clearly shown that it may be quite independent of any alteration of the mind. Authors do not agree upon the nature of the anatomical lesion by which it is caused, and, from the results of our own experience, we are inclined to refer it in general to alteration of the cerebral envelopes, principally to serous suffusion beneath the arachnoid, within the ventricles, and at the basis of the brain. The cortical substance, and even sometimes the medullary texture of the cerebrum, may also be indurated or softened. We believe that, when the cortical substance has been in the first place affected, the symptoms begin by disturbance of the intellect; and that, when the meninges and the basis of the brain have been the primary seat of disease, its first signs are alterations of motility; but we cannot do better than refer you for further information to M. Calmeil's excellent work on the subject. In some cases of introduction of toxic substances into the system no alteration whatever is found on dissection, and yet paralysis has been present; for instance, persons who have suffered much from saturnine intoxication are subject to delirium and epileptic convulsions, which cannot permit us to doubt that the brain has undergone some modification. These subjects often become paralyzed, the extensor muscles of the hands and fingers losing their power of contraction, great pain sometimes existing at the same time in the affected extremities. Again, in hysteria, local paralysis, most fickle in its characters and duration, shows itself frequently. And, as a third instance, we may mention *pellagra*, a disease recently described, which begins by an eruption on the skin, and leads to paraplegia. In this disease, attributed by Dr. Rousselle to the use of bad Indian corn, no alteration in the spinal chord has ever yet been detected, nor has any been discovered in the brain of paralyzed subjects who had suffered from hysteria or from saturnine intoxication.

Some forms of paralysis are certainly due to local alterations of the nerves. Thus paralysis of the deltoid muscle is frequently the result of pressure upon the circumflex nerve; and paralysis of the face often results from disease of the portio dura. In this latter malady, which sometimes may be produced by a draught of cold air upon one side of the face, the aspect of the countenance is particularly striking: the wrinkles of the forehead on the affected side are effaced; the eye remains open, and the conjunctiva becomes inflamed in all cases, from uninterrupted contact with the air; the mouth is dragged towards the healthy side; the tongue is not deviated. When paralysis of the face is due to cerebral disease, and not to an affection of the nerves, the limbs are usually paralyzed also; the tongue is deviated, and we cannot assign a reason for the fact, but the eyelids retain their power of motion. Paralysis may, as we have stated, be the result of a disease of the muscles. This is observed sometimes after rheumatic pains of very great duration, or when a muscle has been kept for a long time in a state of complete immobility; the muscular tissue becomes atrophied, and may for ever lose the power of contracting.

In our next lecture we will study the perversions of motion.

ORIGINAL CONTRIBUTIONS.

ROYAL BERKSHIRE HOSPITAL.

SURGICAL REPORTS AND OBSERVATIONS.

By F. A. BULLEY, Esq., F.R.C.S., Surgeon to the Hospital.

PARTIAL DISLOCATION OF THE ANKLE-JOINT; THE TIBIA BEING THROWN FORWARDS UPON THE NAVICULAR BONE; THE FIBULA AND MALLEOLUS INTERNUS UNBROKEN.

Mr. Owen M., a very tall and heavy man, sixty-six years of age, was admitted into the hospital late in the evening of Feb. 19, 1846, in consequence of his having been thrown from a cart, which, turning over while he lay upon the ground, had struck the instep with such force as to occasion a displacement of the ankle-joint. There was great shortening of the foot in front, with an equal elongation of the heel behind, the foot being slightly everted, and it was so firmly fixed in this position as to be incapable of movement in any direction without great suffering.

The tibia was found to have passed forwards over the articulating surface of the astragalus, its anterior part resting upon the upper portion of the navicular bone. The fibula, which had not passed so forward as the tibia, was apparently unbroken. The foot was not so greatly extended as is usually observed in these accidents. The least attempt to move the displaced parts was exceedingly painful. One or two endeavours had been made to effect the reduction before his admission, but without success; it was, however, easily accomplished by the following simple process:—

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An assistant taking hold of the limb just below the knee-joint, and securing it firmly with a counter-extending force, I grasped the foot, both before and behind the dislocated tibia, and, using a considerable amount of traction, drew it steadily lengthways in the direct axis of the limb until I had in some measure dislodged it from its unnatural position. When I had in this way drawn it as far as I was able, I suddenly bent the foot slightly upwards, and, while the assistant-surgeon was simultaneously pressing the lower end of the tibia backwards, the bone, through these combined efforts, suddenly slipped into its place with a perceptible snap. He was now immediately able to move the joint in the natural manner, its free motion being of course somewhat restricted by the swelling which had taken place since the accident.

℞. Lotio plumbi acetatis dilut. to be constantly applied over the joint.

The patient, being of a very plethoric habit, was ordered to be bled ad ℥xij., to moderate or prevent any inflammation which might ensue from the unavoidable laceration of the ligaments, and to take a colocynth and calomel pill, and an opening draught, in the morning.

20. Has passed a tolerably comfortable night, and the swelling is not so great as last evening. There is considerable ecchymosis round the joint; as far as I am capable of judging, the malleolus internus has not been broken by the injury. The limb to be kept in a raised position.

℞. Acidi acetici, ℥ij.; spt. camphoræ, ℥j.; aquæ, ℥ix. M. ft. lotio. To be used warm during the day, and at night mixed in a bran-poultice.

From this period he gradually recovered from the effects of the accident, without experiencing any tendency to subsequent displacement, notwithstanding no particular means were taken to prevent it; and on the 4th of March, fourteen days from the receipt of the injury, the joint had become so far restored to its natural condition that he was able to go about the ward on crutches, and could even bear gently upon the limb without any great pain; he was, therefore, discharged from the hospital, with orders to return every other day to have a hot-water pump-bath, from the use of which, previous to his discharge, he had derived great benefit. At the end of eight weeks he was fully able to resume his usual occupation, although a slight stiffness remained for some time afterwards.

OBSERVATIONS.

The foregoing case may be considered as a somewhat curious instance of a displacement of the tibia and fibula forwards from the astragalus, without a fracture of the latter bone, and in which it did not appear that the malleolus internus had been broken.

The manner in which the accident had happened would perhaps account for this peculiarity. The foot at the time forcibly extended, and neither inverted nor everted, being struck probably, and as the patient supposed, on its fore part by the iron rail of the cart, and driven backwards. The anterior portion of the capsular ligament, as well as the anterior fasciculi of the lateral ones, might by this means have been ruptured, thus leaving the astragalus free to be drawn from under the tibia by a violent and sudden action of the muscles of the calf; and in this way, under extreme tension of the ligaments behind, a simple dislocation might happen without fracture of these bones, which, according to the opinion of surgical authors, almost invariably occurs in these displacements. That it had not happened, however, in this case is presumable, and indeed evident, from the little or no difficulty experienced in keeping the parts in their natural position after their reduction, which would not have been the case if these bones had been broken.

The circumstance of his being able to get about in the hospital so soon after the accident would lead to the same conclusion.

DISLOCATION OF THE ELBOW, WITH A SINGULAR DISPLACEMENT OF THE RADIUS.

Samuel F., a healthy-looking, muscular man, guard to a night train on the Great Western Railway, was admitted into the hospital, on account of a dislocation of the ulna and radius, caused by his having fallen from a truck, and pitching with great force on his extended hand, while the train was in motion. The limb was considerably shortened.

He was suffering excessive pain in the joint, and pain and some numbness were felt extending downwards in the course of the ulnar nerve as far as its digital extremities, where he described his sensations as most agonizing.

This may probably have arisen from a part of the coronoid process pressing on and irritating the nerve, after the displacement had taken place, as he found the excruciating pain almost instantaneously diminish as soon as the reduction was accomplished.

The joint was greatly distorted, and was held by the persons who brought him, in a gently flexed position, which he said was the easiest to him; the slightest attempt at further flexure or extension causing him excessive pain.

The ulna had been thrown backwards and projected on the posterior surface of the humerus, the coronoid process lying over the cavity destined to receive the olecranon. The tendon of the triceps appeared to be in a state of tonic spasm. On the fore-part of the joint the biceps, and brachialis internus muscles were greatly on the stretch. The head of the radius was curiously displaced, being thrown, as it were, across the ulna, and lying a little above and to the outer side of the usual situation of the coronoid process on the fore part of the joint. In this position it was distinctly perceptible to the feel, the superincumbent soft parts being as yet but slightly swelled.

Extension was made in a nearly straight direction, the arm being fixed by an assistant, and, after steadily continuing traction in this way for about two minutes, the reduction of the ulna was effected, the head of the radius, although drawn downwards, still lying on the fore part of the ulna. Flexure was still difficult and painful, from the head of the radius being pressed upwards against the inner condyle, in the attempts to perform this motion; after some time, however, I succeeded, by gradual compression with my fingers, in moving this bone outwards into its natural position. He could now bend the joint with comparative ease, as far, at least, as the probably injured state of the ligaments would allow; and as I was satisfied that reduction had been fully accomplished, and that the radius had no tendency to become again displaced, he was removed to the accident-ward, and leeches were freely applied round the joint. Hot fomentations to be constantly used during the night. The joint to be kept in a raised position, to moderate or prevent inflammation. To take house medicine.

19. Has been comparatively free from pain in the joint, but complains of a shooting sensation, alternating with numbness, along the course of the ulnar nerve. A cataplasm of vinegar and water and bran, large enough to envelop the arm and outer part of the hand, to be applied. There is some swelling and ecchymosis round the joint.

23. Much general improvement and diminution of the swelling, but the neuralgic pain continues.

℞. Extract belladonnæ, ℥j.; lin. saponis, ℥xj. ft. liniment. bis die infricand. A cold saturnine lotion, to be used in the intervals.

25. The neuralgic pain has ceased. A week having elapsed since the receipt of the injury, passive motion was commenced and continued for a quarter of an hour, without inducing any particular pain in the joint. A figure-of-eight bandage wetted with the cold lotion was applied.

27. The passive motion has been continued, without inducing inflammation, or even pain in the joint. The hot-water douche pump to be used twice a day for a quarter of an hour each time. As there was some difficulty in completely extending the arm, he was ordered to swing a weight of 14 lb. in the hand, every now and then, for a quarter of an hour at a time.

30. Has been using passive motion and the other means since last report, and he can now move the joint with tolerable ease in all directions.

℞. Barbad. naphthæ, ℥iv.; camph. pulv., ℥ij.; olei rorismarin. ℥j.; olei terebinth., ℥ss. M. ft. liniment. sæpe infricand.

June 1. These means having been assiduously persevered in, he has now, fourteen days from the date of the accident, scarcely any pain in the joint, and he is able to perform every movement of it with tolerable ease and freedom; he was accordingly ordered to be discharged from the hospital.

7. He called as an out-patient, and told me that he had resumed his usual occupation on the railroad, and that he felt but little or no inconvenience in using his arm.

OBSERVATIONS.

I should not have been so minute in detailing this case, but that I thought the accident of so singular a nature as to be worthy of being accurately recorded. I must confess that I feel at a loss to understand how the peculiar displacement of the radius which occurred, could have been produced. Instances of dislocation of this bone, forwards alone or with the ulna broken, and backwards with the ulna unbroken, are not rare; but I cannot call to mind any author having mentioned a case precisely similar to this, where its head had passed partially across the ulna anteriorly, and rested on the fore part of the inner condyle of the humerus, the ulna having passed behind.

I know of no way in which it could have occurred, except through the medium of the pronator radii teres muscle, which at the moment of dislocation, when the annular ligament was ruptured, might, from the peculiar position of the arm, have been thrown into strong action, and so have drawn the head of the radius suddenly towards the ulna, while the force continuing pressed it upwards and forwards on the condyle. Whether a strong and somewhat irregular action of this muscle, while the hand was in pronation, would produce this effect, I am not prepared to say, but I think it probable it might do so after the annular ligament had been ruptured by the violence of the accident.

It will be observed that in both the foregoing cases I made use of the hot douche pump-bath, to favour the restoration of the functions of the joints; and in these, as in a great many similar cases in which I have employed it, it appeared to act very beneficially; but as these means are not always available, except under great expense, by the employment of a complex hydraulic apparatus, it may not be out of place to describe the simple mechanical contrivance I have brought into use at the hospital, which appears to produce all the good effects of this mode of treatment, as practised at the hot wells of Bath, Buxton, and many other places where the natural hot streams favour its easy application.

Sir B. Brodie, speaking of this method of treatment, remarks, "I have sometimes tried the effect of pumping hot water on a stiff joint as recommended by Le Dran, and practised at some watering-places. The blow of a column of water from a height of several feet produces considerable friction, even so as to excoriate the surface, with which are combined the relaxing powers of heat and moisture."

It is needless to remark, that in the cases of stiffness of the joints resulting from dislocations and fractures in the neighbourhood of the articulations, and chronic rheumatic affections, sent as a last resource to such places as I have mentioned for relief, the principal and, often, only treatment has consisted in the application of the hot douche-bath; and as it is fair to infer that its good effects are to be referred to the application of the water in this way, rather than to any particular virtue in the water itself, I have subjoined the following simple method of applying it.

From the bottom of an ordinary hot-water bath, a short curved leaden pipe, of about two inches diameter, leads into the barrel of an engine or force pump, fixed against that part of the wall nearest to the corner of the bath in which

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this pipe has been inserted. The portion of it connected with the bath should be covered with a perforated brass cap to prevent its being choked up by substances falling into it. From the upper part of the pump a leaden pipe of large calibre is made to pass upwards to the ceiling of the room, and there, curling shortly round, conveys the water downwards through a smaller tube, which is made to fall over the centre of the bath, to which is connected a flexible india-rubber hose of about a yard in length. By this means the hot water may be conveyed to any part of the body requiring it. To make the stream, which would otherwise be intermitting, of greater strength and more continuous, an air-vessel is inserted in some part of the rising tube, the best position for it being about a yard from its attachment to the pump; and in this way a regularly-uninterrmitting application of the water is produced.

On filling the bath about half full of hot water, it is drawn, by working the handle through the short tube, into the barrel of the pump; thence through the air-vessel and up the rising tube; and, having been applied to the affected part, falls into the bath, and is again and again made to perform the circuit until the temperature of the water has fallen so low by its repeated passage through the pump and tubes as to require a fresh quantity of hot water to be let into the bath, and thus its action may be continued *ad infinitum*.

I have now used this method of applying hot water in upwards of a hundred and fifty such cases as I have mentioned, and, judging from the results, have every reason to believe it is a most valuable remedy in the treatment of stiffness after dislocations and fractures near the joints, and in cases of chronic rheumatism where the ordinary modes of treatment have appeared to have been unsuccessful.

OBSERVATIONS ON OPHTHALMIC SURGERY.

By H. HAYNES WALTON, Esq.,
Surgeon to the Central London Ophthalmic Hospital, and to the St. Pancras Royal General Dispensary, &c. &c.

ADHERENT IRIS AND CLOSURE OF THE PUPIL IN THE ONE EYE, WITH CATARACT IN THE OTHER; OPERATIONS PERFORMED IN EACH INSTANCE; RESULTS; REMARKS.

H. M., aged seventeen, admitted as an out-patient at the Central London Ophthalmic Hospital, Nov. 4, 1846.

Occupation.—A clerk in a news-office.

Symptoms.—The right pupil, which is of a medium size, is closed by a grey-coloured deposit of lymph, on which are a few dark brown specks. The iris is of a light blue colour, neither puckered nor bulging, nor exhibiting any abnormal condition, save that its pupillary margin is adherent. The globe is of a natural firmness, and there is no evidence of the presence of inflammation in any of its textures. With this eye he can but just discern light from darkness. The left eye is quite healthy. His general health is good.

History.—A few weeks ago he discovered by accident that one of his eyes was useless as an organ of vision. Beyond this he cannot give any information.

By the anterior operation a needle is passed through the lymph in the pupil into the crystalline lens, and its handle rotated several times between the finger and thumb.

July 20, 1847. This is the first time the patient has returned since the above date. I have so far forgotten the case that I cannot call it to mind without referring to my note-book. There is now a capsulo-lenticular cataract in the other eye (the left). The capsule is only slightly opaque, the iris is quite healthy, the pupil acting freely.

On the 6th of the present month he remarked to his friends that his vision was slightly misty, which indistinctness has increased up to the present time. It is necessary for him to be led from place to place. In the right eye the iris has fallen back in a slight degree, thereby enlarging the capacity of the anterior chamber. Ordered a solution of strophine to be dropped into the left eye daily.

July 22. The pupil is fully dilated. The anterior operation for solution is performed; the capsule but slighly lacerated. On the right eye is repeated the operation that was performed on the 4th of November, 1846, the needle being introduced into a different spot of the lymph.

Sept. 1. From the extensive manner in which the iris has receded in the right eye, the crystalline lens must be removed. The lymph is divided vertically through its centre with a very broad needle, which is introduced through the cornea, the intention being to make an aperture, which it is hoped may become larger by the contraction of the divided portions.

Oct. 1. The operation has been productive of benefit, but not to the extent expected; he can, however, see large objects through the last-made aperture with tolerable distinctness. The broad needle is again used, but in a lateral direction. The capsule of the left eye is becoming more and more flattened.

Nov. 1. He came to the hospital alone. The last use of the broad needle has been of service in obtaining a larger opening than has hitherto existed, and vision is proportionably benefited. The capsule in the other eye has undergone partial absorption; in the centre there is a clear spot of small size. With this eye he can, in a good light, distinguish the different kinds of money—gold from silver, and silver from copper.

Dec. 11. In the right eye, the lymph has become partly detached from the inner edge of the pupil; an attempt is made to separate it to a greater extent, but the amount of force that seems requisite is not considered justifiable. Blood is effused into the anterior chamber; its source is uncertain. I rather suspect it is from the iris, which must have been pricked with the needle. The aqueous humour has escaped.

13. The aqueous humour is resecreted, and the blood absorbed. There is slight inflammation of the conjunctiva.

℞. Hyd. chlo., gr. ij.; ext. cbl. comp., gr. x. M. ft. pil. ij. To be taken to-night.

15. The inflammation of the conjunctiva has almost disappeared. Vision not quite so good as before the operation.

17. The capsule of the left eye is freely divided in a perpendicular direction, and a clear space of nearly the size of the pupil obtained. To his inexpressible astonishment and delight, he sees better than he has yet seen. The temporary interruption to the vision of the right eye has passed away. He is enjoined not to use his eyes about minute objects.

23. With properly adapted glasses he can read ordinary type. This power is obtained principally by the left eye. He is directed not to attempt for several weeks to use the glasses either temporarily or habitually.

I have not made any allusion to the condition of the right capsule, but spoken only of the lymph that closed the pupil. It was not possible to ascertain the state of the capsule, but that it was thickened there is every probability.

Remarks.

The first point of interest that I shall notice is the cause or origin of the condition of the right eye in which I first saw it. That there had been inflammation of some part or parts of the eye there can be no doubt, and also of its having been of a chronic and insidious nature, since its existence was wholly unheeded. A question arises concerning how far the iris was involved in that inflammatory action. Although we almost always see iritis as an active disease, with some or all of the tissues of the eye involved, and existing with which is more or less constitutional disturbance, it must not be supposed that it does not sometimes assume a chronic form. In this latter variety, pain and redness might be nearly or altogether absent; nevertheless a large quantity of lymph may be deposited, and eventually as much damage effected as in the acute form, to which, in symptoms, it is so much contrasted.

I am disposed to regard the deposit of lymph in the pupil as the result of inflammation of the crystalline capsule, and not of the iris. I do not form my opinion from the unchanged state of the iris, because it was neither discoloured nor altered in structure—for often after severe inflammation it recovers without leaving a trace of morbid change—but on the size of the adherent pupil, that being a material assistance in forming a diagnosis.

It will be remembered that the iris was not in a contracted state, but of the size of its fellow. So far as I know, iritis never occurs in an acute or chronic form, without the pupil becoming contracted, except there had previously existed some disease in the eye, whereby the pupil was in a state of permanent dilatation when the iris was invaded by inflammation.

It is to inflammation of the capsule of the lens alone that I attribute the deposit of lymph; and I think that the iris, without being itself involved, became merely adherent to the lymph against which it rested or was in contact.

It is well known that inflammation of the capsule often spreads to the crystalline lens; but it is evident that such was not the case here.

It is not usual to refer to inflammation as a cause of cataract, nor do I think that the hard cataract of old age is connected with such a source. On the other hand, I feel confident that soft cataract, more particularly when capsulo-lenticular, which, indeed, it mostly is, has frequently such an origin; to which, also, I am disposed to attribute capsular opacity occurring in old persons. I must not, however, include in this statement congenital cataract, since causes which induce its formation are quite hidden from our observation.

In the instance before us, I think we have an example in the right eye of the inflammatory condition exceeding its accustomed limits.

It was at the solicitation of this patient to remove the deformity that I operated on the right eye, the other being yet sound. I should not otherwise have interfered. The operation I selected is that devised by Mr. Tyrrell, and called by him drilling. It is especially applicable to these cases, as well as those of capsular opacity, with adherent iris. I have frequently resorted to it with success. While a pupil of Mr. Tyrrell I had ample opportunity of appreciating its value. The following are his instructions for its performance:—"The patient, being placed as if to undergo the anterior operation for solution, I have passed a very fine straight needle through the cornea at the outer part; and then, directing the point to the anterior capsule of the lens close to the inner margin of the pupil (taking care not to injure the iris), and causing the instrument to penetrate the capsule, and enter the substance of the lens to the extent of about one-sixteenth of an inch, I have rotated the handle of the needle between the fore finger and thumb, so as to make the point act as a drill, and have thus secured an opening more free than could be effected by a simple puncture; then I have withdrawn the needle."

The advantages of this great addition to ophthalmic surgery are—1. It causes removal of the lens, at the same time that it is effecting the formation of an artificial pupil; for, by introducing the needle at each operation into a part of lymph or opaque capsule yet unpuncture, the central position loses so much of its support that it can usually be easily detached, or the partitions between the apertures may be broken down and a useful pupil formed. 2. The comparatively slight injury that it inflicts; for in cases requiring its employment there has generally preceded so much inflammation, notwithstanding perhaps at a remote period, as to render perilous any rough usage.

The plan of procedure thus described is so superior to that of dividing the lens and the deposit of lymph or opaque capsule with the scissors, at the same time that the iris out through; and then extracting the comminuted lens, or at some subsequent operation depressing it; that a surgeon would, I think, always adopt it, unless he were ignorant of such valuable measures.

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By a reference to systematic works on the subject it will be easy to discern, from the manner in which the old recommended plan is treated and dismissed, that it must have been very unsatisfactory.

In proportion to the density of the substance, whether lymph or capsule, that occupies the pupil, is the difficulty of forming an artificial opening, so that at times it becomes necessary to resort to Maunoir's operation after the lens is absorbed. Drilling should be repeated till the lens is quite removed.

My object in using the broad needle has been mentioned. It is surprising how little patent the opening was after all the effectual divisions; there was an almost total want of contractability.

Had the left eye been destroyed I should have divided the iris, and so made a larger pupil; but, with the sight in one organ so perfect, such an act would be imprudent, since the axes of the eyes would not correspond.

Drilling does not throw difficulties in the formation of a pupil by division of the iris, but facilitates it.

The rapidity of formation of the cataract in the left eye was remarkable, and is in favour of the idea of an inflammatory origin. It will be seen, by reference to the notes, that only one operation was necessary for the absorption of the lens. I was determined to proceed most cautiously, to do but little at my first operation, and not to repeat it while I was sure that absorption was proceeding. My caution was directed by a knowledge of the fact that, at about the age of my patient, the greatest number of unsuccessful needle cases occurs. If surgeons would but exercise patience, they would find that the needle need not be used so freely or so frequently as is usually the practice, and greater success would attend their endeavours.

I shall conclude this paper by two quotations from the author to whom I have before referred:—"I frequently see cases in which the operation has failed, and am satisfied that the failure generally results from doing too much at once, or using the needle too freely." Again, in alluding to his early practice of attempting to facilitate the removal of the cataract by dividing it freely, or, what is commonly spoken of, as *breaking up the lens*, he says—"But experience soon taught me that the advantages gained in some cases were more than counterbalanced by the frequent occurrence of inflammation, and by the increase of the number of cases of failure. In fact, the more experience I have had the more cautious I have become."

13, Bernard-street, Russell-square, Feb. 7.

STATISTICAL ACCOUNT OF THE ACCIDENTS BROUGHT TO THE LONDON HOSPITAL DURING THE YEAR 1847.

Admitted as In-patients	No. 2396	In-patients—Male	No. 1781	Out-patients—Male	No. 4216	
Treated as Out-patients	.. 5881	Female	.. 615	Female	.. 1665	
Total during the year	8277	Total In-patients	2396	Total Out-patients	5881	

CONSISTING OF THE FOLLOWING CASES:—

	No.	In-patients. Male.	Female.	Total.	Out-patients. Male.	Female.	Total.
Fractures	1052	392	105	497	416	139	555
Wounds	1879	289	110	399	1100	380	1480
Contusions	3362	663	223	886	1800	676	2476
Sprains	847	84	27	111	470	266	736
Dislocations	110	21	4	25	67	18	85
Concussions	51	47	2	49	1	1	2
Burns and Scalds	462	106	76	182	158	122	280
Hernia	76	42	30	72	4	..	4
Bites of Dogs	64	4	1	5	46	13	59
Attempts at Suicide	18	9	9	18	..	..	..
Various	356	124	28	152	154	50	204
Total during the year	8277	1781	615	2396	4216	1665	5881

* THE FRACTURES consisted of the following cases:

	In-patients.	Out-patients.	Total.
Skull	14	1	15
Face	13	11	24
Spine	3	..	3
Ribs	137	35	172
Sternum	3	..	3
Pelvis	6	..	6
Thigh	59	4	63
Patella	14	1	15
Leg	163	3	166
Foot	14	3	17
Shoulder-bone	6	24	30
Collar-bone	9	134	143
Arm	21	42	63
Fore-arm	16	205	221
Hand	19	92	111
Total	497	555	1052

REPORT OF THE 2396 IN-PATIENTS.

	Discharged Cured.	Died	Remain in Hospital.	Total.
Fractures	447	22	28	497
Wounds	376	5	18	399
Contusions	863	3	20	886
Sprains	98	1	2	101
Dislocations	25	..	..	25
Concussions	45	4	..	49
Burns and Scalds	159	16	7	182
Hernia	60	10	2	72
Bites of Dogs	5	..	..	5
Attempts at Suicide	16	2	..	18
Various	149	10	4	162
Total	2242	73†	81	2396

† OF THIS NUMBER, 29 died on the first day of admission:—

	No.
Viz.—Fractures	6
Wounds	4
Sprains	1
Concussions	2
Burns	14
Suicide	1
Various	1
Total deaths 1st day	29
,, 2nd ,,	11
,, 3rd ,,	7
,, 4th ,,	1
,, 5th ,,	3
,, 6th ,,	2
,, 7th ,,	1
Total deaths in 1st week	54

TOTAL ACCIDENTS BROUGHT DURING THE LAST SIX YEARS.

Years.	Fractures.	Wounds.	Contusions.	Sprains.	Dislocations.	Concussions.	Burns or Scalds.	Hernia.	Bites of Dogs.	Attempts at Suicide.	Various	Totals.
1842	840	1042	2141	567	97	52	265	75	58	38	328	5503
1843	899	1036	2129	592	111	48	327	65	52	46	368	5666
1844	1003	1844	2243	669	86	47	322	52	43	36	266	6102
1845	952	1361	2681	663	108	32	360	46	51	32	269	6555
1846	954	1684	3092	624	119	44	423	68	52	30	234	7019
1847	1052	1879	3362	847	110	51	462	76	64	18	356	8277
Total	5700	8046	15641	3953	631	274	2159	377	320	200	1821	39122

London Hospital, Jan. 8, 1848.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meeting of Feb. 7; M. Pouillet in the Chair.

Election of a Member in the Section of Geology.—M. Constant Prévost was elected by 45 votes, against 15, divided between M. Ebelmen and M. Burat, in the place of the late M. Brongniart, sen.

The Cold-water Cure in Intermittent Fever.—M. L. Fleury communicated a paper on the influence of cold shower-baths in the treatment of intermittent fever. He not only recommended this method in simple recent ague, but also in ancient fevers complicated by visceral enlargements.

ETHER AND CHLOROFORM.

Professor Bouisson, of Montpellier, endeavoured to establish that chloroform was not called upon to replace ether in all instances, but that it was improper to employ both these substances indiscriminately in similar cases. It was in short operations that chloroform should be inhaled, on account of the rapidity of its action, of the shortness of the consequent insensibility, and of the dangers which were caused by prolonged anæsthesia. On the contrary, ether causing less disturbance in the system, and less peril when the inhalation was of long duration, should be employed in all cases of protracted operations.

M. Velpeau requested permission to say that it would be injurious to allow an opinion like that emitted by M. Bouisson to go before the public, with a sort of sanction of the institute. Ether and chloroform could not be in any way compared with each other; the latter should in every instance be substituted for the former. Its effects were more rapid, as complete, and, when administered with caution, chloroform was quite as innocent as ether.

New Mode of Separating the Fibrine of the Blood.—M. Chatèr and M. Bouvier forward the analysis of the blood in a case of scurvy. The fibrine was increased in quantity and less plastic; the globules had diminished in number; the albumen was less coagulable, and the mass of the blood more alkaline, than during health. Having experienced some difficulty in separating the fibrine, the authors recommend, for the purpose of facilitating that operation, the addition to the human blood of a known quantity of ox's blood, which coagulates with great readiness, and permits the fibrine to be detected more easily.

Treatment of Consumption by Inhalations of Liquid Chlorine.—M. Bobierre is of opinion that the action of chlorine in cases of phthisis should be attributed to the decomposition of water and the liberation of oxygen, rather than

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to a special medicinal agency of the chlorine itself.

Alteration of Animal Heat under the Influence of Chloroform or Ether, by Dr. Dumeril and Dr. Demarquay.—Amongst the remarkable effects of these substances, one, which has hitherto escaped notice, and which fixed the attention of the authors, is a curious fall in the temperature of the body. It is more considerable during ethereal than chloroformic insensibility.

ACADEMY OF MEDICINE.

Meeting of Feb. 8; M. Royer-Collard in the Chair.

The meeting was entirely filled up by a paper by M. Huguier, entitled "De l'Esthiomène de la Région Vulvo-Anali." The length of the communication, and the importance of the subject, will justify us in delaying one week the review of this document, in order to place it at full length before the readers of the *Medical Times*.

OPERATIVE SURGERY.

Operations performed at intervals (en plusieurs temps). *A Memoir, read by Dr. Vidal* (*de Casin*) *to the Academy of Medicine at the Meeting of Jan.* 25.—(*Continued.*)

3. Incision of Dry-seated Abscesses and Cysts.—Callisen had already conceived the idea of opening dry-seated abscesses in several successive operations, and M. Bégin established this notion as a precept. By the first operation the surgeon should approach as near as possible to the purulent collection, and sometimes the remainder of the operation may be abandoned to Nature, who performs her part by an ulcerous process, hastened by the phlogosis which the first operation has induced. This method has been chiefly applied to the surgical treatment of hepatic abscess, and it is well known that M. Récamier opens certain cysts of the liver only after the application of caustic. The object of the first operation is to cause adhesions between the visceral and parietal layers of the peritoneum, in order that the abdominal wall may, as it were, become the wall of the abscess, and that effusion of pus into the serous cavity may be almost impossible. As I have already stated, the second part of the operation is sometimes abandoned to Nature, who attains her end by ulcerations. Graves is of opinion that the surgical action should be always limited to the first operation. M. Bégin is of a contrary opinion, for the second operation the knife should be always preferred; for the first, opinions are divided—M. Récamier uses caustic, M. Bégin recommends the knife. The propriety of producing adhesions is attributed by the former to the caustic, and is the reason of his preference; but the inflammation produced by incision may certainly have the same result. Besides, the cause of the partiality for caustics is the consequence of two exaggerated fears—that of the patient who, above all, dreads the incision; that of the surgeon, who exaggerates the difficulties of the operation. The caustic cannot be used with the same precision as the knife; and the time necessary for the elimination of the slough is suppressed, if incision be preferred. Some operations seem, also, to exclude the application of caustic. Thus, in order to carry into execution the idea of M. Bégin and others, who, to create an artificial anus, according to Littré's method, recommend first that adhesions be established between the intestine and the abdominal wall. It is evident that it will be far preferable to divide in the first instance the abdominal walls, to acting blindly with a caustic, the action of which it is quite impossible to direct or to limit.

4. Lithotomy.—The idea of practising lithotomy in several successive operations is ancient. Franco looked upon this method as the best for the extraction of calculi. It was also mentioned by Covillard, Deschamps, Camperzoin, and Saucerotte. But my predecessors were in the habit of opening the bladder on the very first day, and removing the concretions at a later period; whereas, I recommend that the first operation do not extend to the bladder, which will be incised only when secondary inflammation has caused a sort of organic cement to be secreted around those parts which will, after operation, be in contact with urine. Infiltration, one of the great causes of the mortality in lithotomy, is thus prevented. M. Nélaton, M. Monod, and Professor Gerdy have already performed lithotomy according to the principles I here defend; but the cases, in which many serious complications existed—sufficiently serious to prevent the idea of lithotrity or even of the usual operations for lithotomy being entertained—these cases were not fortunate in their issue.

5. Autoplastic Operations. — In these, Groefe and Professor Roux have found great advantage in employing the method which I here recommend. In ruptures of the perineum it will be found useful; and finally, by its adoption, operative surgery will attain the following results:—1. The great disturbances of the system will be avoided. 2. The modes of execution varied, and the resources of nature called into action. 3. Certain plastic operations, more perfect and less dangerous, will become possible; and 4. This question will be solved—Is it better to undergo several simple and short operations, unattended with peril, than submit to uncomplicated, long, and dangerous operations?

ACADEMY OF SCIENCES.

Meeting of Feb. 14; M. Pouillet in the Chair.

Treatment of Acute Mania.—M. Brière de Boismont, who already brought before the Academy of Medicine the treatment of mania by prolonged baths, now laid before the Institute a paper on the same subject, being the *résumé* of twenty-five cases. He insisted with much reason upon the value of a method which, in the short space of a few hours, relieved the brain from the frightful influence of acute mania, and represented the advantage of employing a plan of treatment of a simple and not debilitating nature. He concluded his communication by asserting that the acute forms of insanity might be cured in the space of one or two weeks, by the exhibition of baths prolonged during five, ten, twelve, and fifteen hours, and accompanied by continuous cool irrigations upon the forehead. Acute mania was the form which was most speedily cured; secondly, acute delirium, delirium ebriosorum, puerperal mania, and acute monomania. In several of these forms, however, the cure was neither as rapid nor as constant as in the first. Acute atoxic mania, and chronic mania, were improved, but not in any case completely cured. M. Brière de Boismont was further of opinion that his method would be found useful in hysteria, and in other nervous maladies attended with excitement.

M. Jobert read the first part of a paper on the reproduction of typhus; we will, when the communication has been concluded, present it to our readers in a complete form.

ACADEMY OF MEDICINE.

Meeting of Feb. 15; M. Velpeau in the Chair.

Extract of Secale Cornutum in the Treatment of Internal Hemorrhage: a Report by M. Piorry.

M. Piorry reported on a paper by M. Arnal, relative to the action of the extract of ergot in hemorrhage; and the following were the most remarkable conclusions which the author had arrived at:—Fresh ergot did not seem to be more efficient than the preserved drug; in some cases its action was even less powerful. This medicine does not coagulate the blood, and its influence is negative in external or traumatic hemorrhage. The oil extracted from the ergot of rye does not, says M. Arnal, contain the active principle of that drug, neither can it be dissolved in ether or in water. The powdered ergot is the most active and efficient form in which the medicine can be exhibited. This substance modifies the composition of the blood, which it deprives of a portion of its fibrine.

The reporter proposed the thanks of the academy be forwarded to M. Arnal, and that his paper be inserted in the "Bulletin."

D. M'Carthy, D.M.P.

Convulsions depending on Tape-worm.—Mr. Hutching relates the case of a girl, aged fourteen, who had suffered for three months from attacks of convulsions three times a week. Tonic remedies were employed for a month, and the convulsions disappeared; in another month, however, they returned with abdominal pain and diarrhœa. Worm powders and ol. terebinth., in doses of twenty drops, were prescribed without effect. She was now ordered ol. tereb., ʒij.; ol. ricini, ʒiv.; gr. opii et tr. card. comp. aa. gr. xij.; aquæ-menth. virid., ʒss. M. st. haustus, primo mane exhib. In the night she passed five or more yards of tape-worm, since which she has permanently recovered.

Femoral Aneurism.—Patrick M'Vastry, aged forty-five, a prisoner in the Maryland Penitentiary, presented himself to Dr. Gibson on the 25th of June, with a large tumour occupying the greater part of the inguinal triangle (Scarpa) on the inner and anterior part of the left thigh. Its true nature was immediately discovered, and the patient put in preparation for an operation. From the close approximation of the aneurism to the crural arch, it was deemed expedient to tie the external iliac artery; and after a week's preparatory treatment, consisting in the regulation of diet and attention to general health, the operation was performed on the 2nd of July. The patient being placed on a narrow table, with the shoulders elevated, an incision, three inches and a half long, was made about an inch above and parallel with Poupart's ligament, commencing opposite the anterior superior spinous process of the ilium, and ending a little above the external ring. The first cut divided the skin and superficial fascia, and exposed the tendon of the external oblique muscle, which was next divided to the same extent on the director. The lower margins of the internal oblique and transversalis were now found, and divided to the extent of three quarters of an inch upwards, when the fascia transversalis was exposed and torn with the finger-nail, and the artery then discovered on the inner border of the psoas muscle, covered by the sheath it receives from the fascia iliaca. The director was here used to rupture the sheath, on the inner side of the artery, and detach it from the vein, and, when the whole circumference of the artery was thus cleared, the aneurismal needle armed with the ligature was easily passed around it, from the inner side above the epigastric. The ligature was now drawn firmly and tied, and the pulsation in the tumour instantly ceased. The divided internal oblique and transversalis muscles were carefully adjusted, the wound sponged clean, and the edges brought together by the interrupted suture and adhesive straps, leaving merely space for the passage of the ligature. On the third day after the operation, the wound was examined, and union found to have taken place by the first intention, with the exception of about a quarter of an inch round the ligature. The sutures were cut out and the straps retained. A slight discharge had stained the compress. The wound was dressed daily. On the twenty-first day the ligature was drawn away with a very slight effort, and the opening left gradually contracted and healed. About ten days after the operation, another tumour appeared about the middle of the femoral artery on the opposite thigh, also aneurismal, and the size of a large walnut. The femoral artery was tied on this side, in its upper third. The pulsation ceased immediately on the application of the ligature. The wound also healed by the first intention, and the ligature was detached on the eighteenth day. The patient is now entirely well, and almost strong enough to resume the usual labour of the convicts.

Irritable Bladder, with Stricture of the Urethra, dependent on Tapeworm in the Intestine.—A case is related in "The Dublin Medical Press," by Mr. Tufnell, of a man of temperate habits, aged thirty-seven, who came under his care on the 10th of June, complaining of excessive irritability of the bladder, with difficult micturition. He had enjoyed good health till about three months

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previously, when he began to suffer from the usual symptoms of dyspepsia, with irritation of the rectum, and hemorrhoids. These symptoms increased, and to them were added tenesmus and frequent calls to make water, which was voided in a twisted jet, and accompanied by severe straining, but no pain. He received temporary relief from taking opium; but he became emaciated, and his health had suffered severely before he applied for medical assistance. A small bougie when introduced was arrested, and grasped tightly by a stricture at the membranous portion of the urethra, the probable result of an attack of gonorrhœa, from which he had suffered some years before. The urine was highly acid, and loaded with lithate of ammonia. The prostate was of natural size, but very sensitive to the touch. The patient was ordered to rest in the recumbent position, to have a pint of tepid water injected up the rectum night and morning to relieve local irritation, and to take infusion of columba with tincture of hyoscyamus, and liquor potassæ. The bowels at the same time to be evacuated by castor oil. Under this treatment he improved so rapidly that he resumed his usual habits at the expiration of a week. His symptoms, however, immediately recurred, and were as immediately relieved by his resuming his former treatment, with the horizontal posture. A second speedy recovery was effected, but he returned in a few days suffering severely, and anxiously desiring an operation for his relief, being convinced that he suffered from urinary calculus. The irritation about the anus had now greatly increased, and he was observed at the same time to be frequently rubbing his nose, which suggested the idea of the possible presence of worms in the intestines. A purgative of turpentine and castor oil was accordingly administered, and the following morning a tapeworm measuring thirty feet was evacuated. All the former symptoms immediately subsided, the urine became clear and healthy, and the patient was soon restored to permanent health.

Foreign Body in the Bladder.—M. Robert related the following case to the Surgical Society of Paris:—A young man, three days previously to his applying for assistance, had introduced an ivory ear-pick into his urethra, which very soon after its introduction became the cause of extreme suffering. On a careful examination of the urethra no foreign body could be detected, but it was discovered, by means of a sound, to have entered the bladder. It was there repeatedly seized with the three-branched forceps, but the attempts at extraction were fruitless, as the body lay across the neck of the bladder. It was agreed, on consultation with M. Heurteloup, that it should be broken, and, if possible, extracted piecemeal, and with this view a *brise-pierre tranchant* was introduced, and the ear-pick cut across. The following day the patient, with much satisfaction, showed to M. Robert a fragment of the ivory which he had voided with his urine, the appearance of which induced the belief that two fragments still remained within the cavity of the bladder. On the following day the patient had a shivering, which was speedily succeeded by a second rigor. M. Heurteloup now made a second attempt to reduce the ear-pick into smaller fragments, but failed in bringing the instrument in contact with any foreign body. During the night following this second operation, all the symptoms of acute peritonitis supervened, from which the patient rapidly sunk. On dissection the peritoneum was found highly inflamed, the rectum was adherent to the posterior surface of the bladder on the left side, and an abscess had formed in the cellular tissue of this part. The internal surface of the bladder was inflamed, and the ear-pick, perforating its walls, projected about three-quarters of an inch into the abscess. From this case M. Robert draws the conclusion, that, when a foreign body like the above has found its way into the bladder, and it is determined to attempt the destruction of it by crushing, it is desirable to finish the operation at one sitting (that is, to reduce it into such small fragments that they may be expelled from the urethra), for fear of the pointed extremities which are left perforating the walls of the bladder.

Inflammation of the Ventricular Serous Membrane, and Chronic Hydrocephalus.—A young girl, ten years and a half old, intelligent and well developed, was seized suddenly with violent cephalalgia, accompanied by vomiting, fever, and intolerance of sound and light. On the fifth day there was a violent attack of general convulsions. On the seventh day, dulness of hearing, and afterwards cephalalgia, vomitings, and especially convulsions. On the eighteenth day, retarded and irregular pulse; complete deafness on the twenty-first day. On the fifty-second day the intelligence commenced to diminish, and the convulsions became more rare. On the sixty-third day there were involuntary stools; almost complete idiotism on the sixty-eighth day; disappearance of convulsions in three months. Eight days later there were vomitings, with intermitting convulsive cries, and in one of these attacks she died, four months after the commencement of the disease. On examination, the cerebral convolutions were completely obliterated, and there was a little opacity of the membranes enveloping the nervous centres. Arachnoid, slightly thickened and opaque, without any character of inflammation, acute or chronic. There were ten ounces of limpid and strongly albuminous serum in the ventricles, and their lining membrane had a gelatinous aspect, was half a millimètre in thickness, and of remarkable consistence. Dr. Rilliet thinks this a case of inflammation on account of the fever present at the commencement, and of the convulsions, which appeared only on the fourth day. He concludes, first, that the membrane which lines the ventricles may be inflamed without the arachnoid and pia mater of the periphery participating in the inflammation; secondly, that this meningitis is characterized by cephalalgia, vomitings, constipation, a tolerably intense fever, and repeated convulsions without alteration of intelligence; third, that the inflammation may terminate by a chronic hydrocephalus, as distinguished by failure of the intelligence, and latterly idiotism; fourth, that in this form of hydrocephalus the liquid effused is strongly albuminous.

Treatment of Cholera in China.—Dr. Coldstream says, in "The Monthly Journal," that in a manuscript translation of a modern Chinese work, on the treatment of diseases, lately forwarded to this country by Mr. Lockhart, medical missionary at Shanghae, the following prescription is given for the treatment of cholera:—"In cases of vomiting and purging, where there are dizziness of the head and confusion of vision, with coldness of the limbs, if the administration of medicine be at all delayed, the patient will be lost. You ought instantly to administer pepper, quince, and salt, of each five drachms; mix them with three bowls of water, and make a decoction to be administered, which will effect a cure. Also, use mint-leaves and orange-peel, of each five drachms, and make a decoction for use. Thus, if the patient be even in a state of collapse, he will be instantly revived. Also, take soot from the bottom of a cooking-pan half a drachm, and soot from the top of a chimney one drachm and a half; mix them with hot water for a dose. In cramp, with violent retching, whenever the limbs are cold, with ineffectual retching and severe straining without any result, drawing up of the knees to the abdomen, excessive perspiration, cold breath, respiration almost extinct, take of hot salt one ounce, ivory black one drachm, and make a decoction for use, which will produce vomiting, and the energy of the stomach will be restored, and the patient will be cured. Or, take two spoonfuls of salt, boil with boy's yellow urine for a dose, which will be efficacious. Or, take of pepper three or four ounces, with several ounces of salt, make the whole warm, and apply it over the navel as a fomentation, which will effect a cure."

THE MEDICAL TIMES.

SATURDAY, FEBRUARY 26, 1848.

SETTLEMENT OF THE QUESTION OF MEDICAL REFORM.

IMPORTANT ARRANGEMENT BETWEEN THE GOVERNMENT AND THE DIFFERENT MEDICAL CORPORATIONS.

We last week announced in general terms, that representatives of the two Colleges, of the Society of Apothecaries, and of the National Institute had had frequent conferences, and, by dint of much moderation and mutual concessions, had, agreed on the basis of a bill and charter, likely to be brought forward by the Government on one side, and to be satisfactory to the whole profession on the other. Without pledging ourselves to the complete accuracy of the following statement (which is, indeed, likely to be at fault in one or two details), we may announce generally, that the following are the principles on which the different bodies so uniting have agreed that the new bill should be based:—

"I. That a charter of incorporation should be granted to the surgeon-apothecaries of this country, under the title of 'The Royal College of General Practitioners of England.'

"II. That a council should be established to superintend the registration of all medical and surgical practitioners, and for the general control of medical education and practice.

"That the council should consist of one of her Majesty's Principal Secretaries of State, in right of his office (who should also be president of the said council, with power to appoint a vice-president), and that the other members of the council (of whom not less than two-thirds should be registered members of the medical profession) should be such persons, not more than twelve, whom her Majesty, with the advice of her Privy Council, should deem fit to be members of the said council.

"That the council should be empowered, with the approval of the Secretary of State, to appoint a principal secretary and local secretaries for Scotland and Ireland, and clerks, messengers, &c.; and that the members of the council, the secretaries, clerks, &c., should receive such salaries as the Lords of the Treasury should think proper to allow.

"III. That a register should be made and published by the said council, as soon as conveniently may be, of all persons entitled, as after explained, to be registered as physicians, surgeons, or general practitioners, and who shall apply to be so registered within one year if residing in any part of the United Kingdom, or within two years if resident abroad, for which a fee of ten shillings shall be paid by each person so registered; and that to the register should afterwards be regularly added the names of all persons who shall receive letters testimonial, as after explained, of their fitness to practise as physicians, surgeons, or general practitioners, and that for such registration should be paid the sum of five pounds in the case of a physician or surgeon, and of two pounds in the case of a general practitioner. All such fees should be applied towards defraying the expenses of this act.

"The register to be formed on the plan of a specimen submitted to the committee of the House of Commons in 1847 by the registrar of the College of Physicians.

"And all persons desirous of being continued on the register should be required to send their names and residences to the council annually, but without the payment of additional fees.

"The register to be received as evidence in courts of law.

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"IV. That those persons should be entitled to be registered as general practitioners who shall be enrolled as members of the Royal College of General Practitioners within one year from its first incorporation, according to the provisions of a charter which has been prepared for that college; and that those persons shall afterwards be entitled to be so registered who, having attained the age of twenty-two years, shall have received letters testimonial of their fitness to practise as general practitioners, from the examining board of the Royal College of General Practitioners, and who shall also have been examined and admitted as members of the Royal College of Surgeons.

That those persons should be entitled to be registered as surgeons who shall have been examined and admitted as fellows or members by the Royal College of Surgeons. But, after the passing of the act, those who shall be admitted as members shall be also examined and admitted by the Royal College of General Practitioners, and registered as general practitioners.

"That those persons should be entitled to be registered as physicians who shall have been admitted as members of the Royal College of Physicians, according to the provisions of a new charter which has been prepared for the College of Physicians, and has also been submitted to the Government, which charter it is expedient should be granted to the College of Physicians.

"That the cases of persons who have been engaged in practice prior to the passing of the act, without being members of any corporate body in the profession, should be referred to the college of the department in which they have practised respectively, for special investigation of their claims to be admitted to register.

"V. That the members of each class of the profession, registered in each of the three kingdoms respectively, should be entitled to be registered and to practise reciprocally in either of the three kingdoms as physicians, surgeons, or general practitioners, as the case may be, provided the education and examinations of each class respectively be assimilated and regulated by a certain standard common to each class; and provided that, previous to registration, they be enrolled in the college appropriated to their class, in the country in which they practise.

"VI. That the council shall be empowered to allow or disallow any new by-law which shall be made by either of the colleges.

"Also, cause a register to be made of medical and surgical students, and to make such dispensing regulations as shall seem fit in favour of those students who shall have commenced their professional studies before the passing of the act.

"Also to call for returns respecting examinations, and fees for letters testimonial and admission into the respective colleges, and to take such other measures as may be necessary in order to assimilate, as nearly as possible, the education, examinations, and fees for each class of the profession, respectively, in each of the three kingdoms. And that the council should be empowered, in any case in which it should appear to be necessary, in order to secure efficiency and uniformity of examinations, to depute one or more of its members to be present at the examinations of any of the colleges, provided the members of the council so deputed be medical practitioners, and of the same class in the profession as the college to be visited; and if, upon the report of such visitor, or otherwise, the council should be of opinion that its regulations are not complied with by any examining body, that it should be lawful for the council to refuse to register, upon the testimonials of the body so in default, until the same be amended to the satisfaction of the council.

"That the council should be empowered to strike from the register the names of any persons who shall be proved to have obtained the registry of their names by any fraud or false certificate, or who shall have been convicted of felony, or of having wilfully and knowingly given any false certificate in any case in which the certificate of a medical practitioner is required by law; also, the names of any persons who shall have been expelled from either of the colleges, according to the terms of their respective charters, provided such expulsion shall have been approved and allowed by the council, as before required, respecting by-laws.

"VII. That no one who is not registered should be judged capable of performing any act which is required by law to be done by a medical practitioner; nor should any but a registered person be appointed to any office which is deemed by the council to be a public medical or surgical office; nor should any but registered general practitioners be entitled to demand or recover fees for medical and surgical advice and attendance, or for medicines prescribed or administered.

"VIII. That penalties should be imposed by summary process on all unregistered persons practising medicine or surgery.

"Also, on all unregistered persons falsely pretending to be registered.

"Also, on all persons assuming any professional name or designation to which they are not by law entitled, or which implies that they belong to a class in the register in which they are not registered, or that they are members of a college in which they are not enrolled.

"In thus laying down the principles on which a bill should be framed for regulating the whole medical profession, the committee has entered into particulars only as regards the profession in England; but under the fifth head, respecting reciprocity of practice in the three kingdoms, it has assigned the conditions which are clearly indispensable for the attainment of that desirable object.

"The committee is aware that some variations from the plan which is here drawn out for England may be rendered advisable or necessary, by local circumstances and the rights of existing institutions, in Scotland and Ireland.

"And the committee is contented that such variations should be made, provided the principle be not contravened, that equality of education and qualifications in each class respectively of the profession in the three kingdoms should be first obtained, in order that the right of reciprocal practice may be justly allowed."

LORD ASHLEY'S RESOLUTIONS.

THE publication by Lord Ashley of his eight resolutions has given a somewhat new turn to the question of poor-law medical relief.

The Committee appointed by the Convention aimed at winning from Parliament and the Government a reconsideration of the whole system; and with that view, while keeping constantly before the public the injuries it daily caused, they carefully collected the data which established for their claims a case at once certain and irresistible.

As, however, it is one thing to show a large title, and another to win its ready and full recognition, the body of medical poor-law officers have not been indisposed to the more modified movement which Lord Ashley has proposed to them.

The resolutions of his lordship do not go far enough; they are far from offering us all the guarantees of that general improvement required by the circumstances of the profession; but it must be confessed also that they introduce with little show, and with no great alterations, agencies which, well worked, may hold within them the seed of very much good. The two first resolutions, giving immediate access to the doctor, secure what is a boon no less to the medical man than to the poor; and, if it should turn out that an order be refused by the relieving officer after a single attendance, there will remain possibly in the new officer (the medical inspector) the power of ordering payment where the case is one of the extras. This is important.

While we thus admit the advantage of the object aimed at by the two first resolutions, we do not see what is gained by introducing the complication of a "parish list." A *first* attendance is as much secured to the "*casual*" poor as to the poor on the "list," before any order from the relieving officer: without that order, both are equally deprived of *further* attendance: the list made, then, for the medical man is, in fact, for his purposes no list: it neither serves the poor nor aids him, and has no business that we see in the resolutions at all. We apply to it the words of Horace—"*Nec Deus intersit*," &c., and the sooner the two resolutions form one the better.

The third resolution might, we think, be well omitted. It gives no new privilege to the poor, and seems to look forward to a system of female midwifery that cannot be too soon done away with. Why shall we specially arrange for medical relief in first and difficult labours *when* such relief cannot now be denied by law? and why shall pauper matrons be indirectly precluded from medical assistance, except under *certain* circumstances which, occurring many months or years before, are supposed to omen a troublesome or protracted parturition? We would respectfully urge that this resolution is quite unneeded, and that if it is to have any action, it will not be that of improvement.

The fourth resolution, providing for a consultation where the destruction of infantile life seems necessary, is one on which we would avoid unnecessary discussion. It will not be opposed by the profession.

The fifth resolution, insisting on legal qualifications when attainable, is but a reassertion of the present law, tending perhaps, though certainly in a very slight degree, to make more difficult the employment of unqualified men as poor-law medical officers.

The permanency of appointment, provided for by the sixth resolution, is unquestionably a boon. It will be a practical benefit if carried; for all action favours professional independence.

The succeeding resolutions are, however, the important part of Lord Ashley's proposition.

We again print them:—

"7. That it is expedient that medical inspectors be appointed by the poor-law commissioners, or by the Secretary of State, or with his sanction; one to each district to which an assistant poor-law commissioner or inspector is attached, at a salary not exceeding four hundred pounds a year, exclusive of travelling expenses, and exclusive of an allowance of a clerk, if the duties should require one.

"That the duty of the medical inspectors should be to inspect and report on the medical treatment of the poor of the different unions, and on the fitness of the medical men appointed by the unions; to inquire particularly into the treatment of the sick poor in the union-houses, and to regulate such treatment; to inquire into and report on the diets and healthful condition of the poor within them generally, together with such other sanitary duties of every kind as may be required of them by the Secretary of State, or by the poor-law commissioners; and particularly with respect to the number of medical officers who ought to be employed in each union, and the salaries which ought to be awarded to them for their services in each particular union, or part of a union, in the district."

The practical value of all these resolutions will be the use to which the *Inspectors* will turn their powers. To some extent these officers will be a protection of the poor;—to what extent will they be a protection to medical men? The answer depends on another question—how far

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their reports and recommendations will affect salary?

Lord Ashley, in his conference with the Committee, expressed his willingness to insert a clause enabling the inspectors to affix the amount of salary that ought to be paid, subject to the approbation of the Commissioner or the Secretary of State. This will certainly be an important change; but still the inquiry will remain—What are the inspectors likely to make of their power? We speak in doubt and hesitation, but our hope and expectation is that the inspectors will work well. If they should make on our side duties more burdensome, there is force enough in the profession, we surmise, to see that they make them also far more remunerative.

In any case nothing can be lost by the passing of Lord Ashley's resolutions. If they even made matters worse, they would only make the proximity of our remedy greater; and if they act for improvement, as they to some extent must, the profession would not have been justified in refusing them in the expectation of getting more by waiting. The organization of poor-law medical officers remains as strong and united as ever. They have established a case for Government interference that must sooner or later conquer all opposition; and the success of Lord Ashley in carrying his suggestions will only serve as an encouragement for the continuance of their good work in greater zeal and energy.

It is with these facts before us, and supported by these considerations, that we consider the Convention has done a wise, as well as graceful, thing in promising its aid to the noble member for Bath, and recommending his measure to the "active support" of the profession.

THE FATAL CASE AT NEWCASTLE ATTENDED WITH INHALATION OF CHLOROFORM.

The fatal case which occurred at Newcastle, after the inhalation of chloroform, has produced a controversy amongst some of the members of the medical profession. At present three parties have appeared in the lists, advocating three different opinions—one, that death was produced by brandy and water poured into the pharynx when the patient was in a state of syncope; another, that the anæsthetic agent caused death in consequence of some idiosyncrasy in the patient's constitution; a third, that the chloroform being introduced into the lungs in too rapid a manner, and in too concentrated a form, death was the consequence of an over-dose.

Dr. Simpson, of Edinburgh, is the physician who has advanced the doctrine of Greener's death having been the result of suffocation. He has endeavoured to prove its truth by referring to the *post-mortem* appearances, these, as he says, being in accordance with those usually occurring in persons who have died from obstructed respiration. He admits that asphyxia may result from the use of chloroform, and that the respiration may be temporarily suspended when very powerful and deep doses of the anæsthetic agent have been administered; but says that patients have always recovered by simply removing the napkin from the face and letting them alone. Dr. Simpson imagines that, had this simple process been adopted in the case now under consideration, death would not have resulted.

Still further to establish the position which he has assumed, he states that the morbid appearances of the body differed in some essential points from those seen in the bodies of animals killed by the inhalation of chloroform: in every case firm coagula of blood were found; in some the lungs were congested, in others not, nor was there congestion of the brain in any.

It is natural that the learned Edinburgh accoucheur, to whom the credit is due of having introduced to the notice of the profession chloroform as an anæsthetic agent, should endeavour to shield it from any blame which its adversaries may attach to it in a *doubtful* case. All his sympathies are engaged on its behalf, and, having used it in very many cases with the greatest success, of course he considers that with ordinary care no fatal results can ensue. The administration of the brandy and water to the patient by her medical attendant was a happy circumstance, in the doctor's estimation, to save the credit of his adopted child; and the *nimia cura medicinæ* is saddled with all the blame of the fatal catastrophe. Little did Dr. Meggison imagine when he took the spirituous compound into his hands, and through the open jaws of his patient poured it into her pharynx, that it was as pregnant with death to her as the renowned horse admitted within the walls of Ilium was to that ill-fated city. The ingenuity of Dr. Simpson will certainly tell upon the minds of many intelligent medical practitioners, and will make them hesitate to pronounce a verdict in this case against the new anæsthetic agent.

Another opinion upon this case is, that the fatal result was brought about by some peculiarity in the young girl's constitution. Of this opinion is Sir John Fife, who made the *post-mortem* examination of the body. He stated at the inquest, "I attribute the fatal effect of the chloroform in the present instance to peculiarity in the constitution of the young woman. I am doubtful whether it arose from the state of the lungs, or the peculiar susceptibility of the nervous system. It sometimes happens that a person will die from the shock of the operation within a very few minutes after, and with nothing to show the cause. I think in such cases the same individuals would be influenced in a similar way with the chloroform. The same susceptibility of nerve that would render the shock fatal would render the chloroform fatal." Drs. Meggison and Glover entertain the same sentiments also; and the quantity of the anæsthetic agent administered (a tea-spoonful) seems to favour their views. From the mode of inhalation it is fair to presume that not more than one-half passed into the lungs. This, though a small quantity, operating upon a frame greatly depressed from the fear of undergoing an operation, was considered as the real cause of death.

It is evident from the report Dr. Meggison furnished to the columns of the *Medical Times*, that the girl dreaded greatly the operation; he says, "The whole of the day previously she had been fretting much, and apparently dreading it, crying continually, and wishing she were dead rather than submit to it. *In this state we found her on Friday, when we went to perform the operation. She sat down in the chair sobbing.*" It is well known to every operating surgeon that some patients appear as if they neither dreaded nor felt pain, while others seem almost dead when placed on the operating-table. Some will watch the steps of the proceedings, while others will manifest their fears and sufferings by groans. Fear is one of the most acute and depressing passions of the mind, and cases have been known of persons expiring suddenly when about to undergo an operation. Mr. T. B. Curling, in a pamphlet recently published on "The Advantages of Ether and Chloroform in Operative Surgery," says, "The state of the system, consequent upon great dread, or inducing up the mind to the endurance of a painful operation, is related in some few instances to have had a fatal termination. A case of this kind occurred to that eminent and cautious surgeon, Mr. Cline. A patient, whose breast he had amputated, expired within an hour afterwards without any loss of blood, and having had no previous indisposition, only a prodigious reluctance to the performance of the operation. Mr. Travers mentions the case of a man who was the subject of strangulated hernia, and expired suddenly during the steps preliminary to the operation. Some years ago a man died at the London Hospital whilst undergoing an operation for femoral aneurism. After the artery had been exposed, and the ligature applied, but not tightened, it was discovered that there was no pulsation in the tumour, and that the patient was dead."

It is evident, therefore, that the depression of the vital powers by fear will sometimes produce fatal results, independently of any anæsthetic agents which may be employed to prevent pain.

Dr. Snow is of opinion, however, that neither the brandy and water nor the collapse from mental emotion was the cause of death, but the chloroform, and this from being too rapidly administered, and in too concentrated a form. He considers that the effects of the vapour may accumulate for twenty seconds after the inhalation is discontinued, and that this will be more formidable in proportion to the quantity of vapour inhaled and the rapidity with which the symptoms are induced.

He thinks that, if only half a drachm entered the lungs of the patient in a very short space of time, its action on the nervous centres was so great as to put a stop to respiration. He, therefore, repudiates the opinion of Sir John Fife, that death resulted from congestion of the lungs, which was only a consequence of the mode of dying, and an indication that the heart continued to inject blood into the lungs after oxygen was no longer admitted to facilitate its passage through the capillaries. This, however, is a mere opinion which some of the members of the profession will receive and others reject. But the recommendation of Dr. Snow, that chloroform should be gradually and cautiously exhibited, will be universally considered as a maxim which ought to be constantly observed.

After reviewing the conflicting sentiments of the different medical gentlemen cited above, our own opinion is, that the patient's state of collapse induced by excessive fever had much to do with the subsequent fatal results. The operation was submitted to with great reluctance, and while the patient was greatly depressed the anæsthetic agent was administered, which still further weakened the vital powers.

As it is requisite to use great caution in giving either chloroform or ether after a severe injury when a state of collapse prevails, so is it equally necessary that the same care should be observed when the patient is depressed by excessive agitation.

Anæsthetic agents have not yet accomplished their state of probation, and we hope that nothing further will occur in relation to them that will shake the confidence of the profession or of the public.

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EMIGRANT VESSELS.

The Government has at length been induced to propose to the House of Commons a bill for the better regulation of emigrant vessels. The catastrophes which occurred last year have rendered it necessary that some stringent measures should be adopted to protect the unfortunate human beings who are compelled to leave their native shores for, may be, the Western Continent.

The bill, which was read a second time on Monday evening last, proposes that for the future a space of twelve feet shall be allowed to each passenger instead of ten; that vessels shall be supplied with an adequate quantity of food proportionate to the number of passengers; and that every vessel shall take a responsible Government officer to see that the regulations made by the law are enforced, and, should any improper conduct of the captain or officers of the ship be manifested towards the emigrants, to lodge a complaint on arrival in port.

There is one great defect in the bill, however, inasmuch as it does not effectually provide for emigrant vessels carrying duly qualified medical practitioners. Passengers will be left as in times past to struggle with disease without the hand of science to help them, and all for the reason, as Mr. Labouchere would have us believe, that a sufficient number of surgeons could not be found for the numerous emigrant vessels. A lamer excuse could not probably have been made, as there are at the present time nearly twenty thousand medical practitioners in Great Britain and Ireland. Surely amongst this number, when a proper remuneration for their services was secured, there would be enough found to supply the wants of every vessel.

It is evident, from the statement of the honourable member just referred to, that it is the expense, and not the want of a sufficient number of medical men for the purposes required, that is the real cause of their employment being left to the caprice of an avaricious merchant. The Government will have a superintendent in every ship—probably some warrant-officer of the navy—who is to receive for the voyage the sum of £20, and his vigilance is to supersede the necessity of medical appliances. Yet it was shrewdly hinted that, when a competent and trustworthy surgeon could be found, he might execute also the office of superintendent, and thus respectable merchants might be able, for one half the expense they have hitherto incurred, to send in their vessels medical practitioners.

The proper persons for such an office are members of the medical profession, as from their education they are best acquainted with all that is necessary to ensure the comfort and health of the passengers. A person in a less honourable position in society would command but little respect, and, with a small salary for his services, would be especially liable to the influence of a bribe, should the captain be disposed to promote his own pecuniary interests at the expense of the health and morals of the passengers. The extent to which this kind of wrong has been carried is truly appalling. Mr. Stephen De Vere, an Irish gentleman of station and character, having occasion to go to British North America, went as a steerage passenger, that he might make himself personally acquainted with the condition and treatment of such passengers, knowing that there were to be among them some from the neighbourhood in which he resided. The following is an extract from a letter which he wrote:—

"No moral restraint is attempted; the voice of prayer is never heard; drunkenness, with its consequent train of ruffianly debasement, is not discouraged, because it is profitable to the captain, who traffics in grog. In the ship which brought me out from London last April, the passengers were found in provisions by the owners, according to a contract and a furnished scale of dietary. The meat was of the worst quality. The supply of water shipped on board was abundant, but the quantity served out to the passengers was so scanty that they were frequently obliged to throw overboard their salt provisions, and rice (a most important article of their food), because they had not water enough both for the necessary cooking and the satisfying of their raging thirst afterwards. They could only afford water for washing by withdrawing it from all the cooking of their food. I have known persons to remain for four days together in their dark close berths, because they thus suffered less from hunger, though compelled at the same time by want of water to heave overboard their salt provisions and rice. No cleanliness was enforced; the beds never aired; the master during the whole voyage never entered the steerage, and would listen to no complaints; the dietary contracted for was, with some exceptions, nominally supplied, though at irregular periods; but false measures were used (in which the water and several articles of dry food were served), the gallon measure containing but three quarts—which fact I proved in Quebec, and had the captain fined for. Once or twice a week ardent spirits were sold indiscriminately to the passengers, producing scenes of unchecked blackguardism beyond description; and lights were prohibited, because the ship, with her open firegrates upon deck, with lucifer-matches and lighted pipes used secretly in the sleeping-berths, was freighted with Government powder for the garrison of Quebec. The case of this ship was not one of peculiar misconduct; on the contrary, I have the strongest reason to know, from information which I have received from very many emigrants, well known to me, who came over this year in different vessels, that this ship was better regulated and more comfortable than many."

Without stringent regulations, and efficient officers to see them carried out, such transactions will be of frequent occurrence. Emigrant ships are chartered by the owners for the sole purpose of obtaining a profitable return for the money employed in the speculation. Government should take care, however, that the health and morals of the passengers are not sacrificed upon the altar of that a sanguinary deity, mammon. They have been, and will still be, if superintendents of emigrant ships are to be chosen from amongst warrant-officers of the navy at a salary of £20 for the voyage, and the employment of surgeons is left to the caprice of those who charter the vessels.

MEDICAL EDUCATION REFORM.

TO THE RIGHT HON. LORD JOHN RUSSELL.

My Lord,—There are many reasons why I should address your lordship in particular on a subject which involves the public weal, and affects materially the interests, the rights, and the privileges of individual members of the community.

Firstly,—Your lordship is the head of her Majesty's Government.

Secondly,—Your lordship is the head of a professedly liberal Administration.

Thirdly,—Your lordship has already distinguished yourself as the advocate of civil and religious liberty, and even now confront one of the most influential bodies in the state in support of your principles.

I confess the last is my strongest reason for addressing your lordship, as you have shown your determination to oppose the enactments of those public bodies who, forgetful of the purposes for which they were originally intended, would pervert their powers to their own aggrandizement, and, whilst they neglect the duties of the offices to which they have been appointed, would raise up in the country institutions of sacerdotal, religious, and civil despotism, contrary to the spirit of the British constitution and the liberty of the British subject.

Your lordship may, perhaps, deem the immediate subject of my letter as of too unimportant a nature to receive that consideration which I appear to claim for it.

I grant that, taking an isolated view of its several bearings, this might be the case; the injuries that would result would be confined to only a few thousand persons, and these of a class in life not usually deemed worthy in modern times of particular consideration, namely, members of the medical profession; but, taken in conjunction with other encroachments on private enterprise and private freedom, the subject obtains an importance which demands, and should obtain, consideration.

The evil has ascended; it beards your lordship in your office, and confronts the power of the Crown. So long as it confined its operations to other circles it received no attention—it was not thought worthy of consideration; it might enter the cottage of the poor, the dwelling of the tradesman, or the home of the professional man,—it might desolate their hearths,—the evil was not of magnitude. It approaches your lordship's position, and immediately swells into a monster of national importance.

My lord, you have assisted to create the demon whom you combat, and, like another Frankenstein, now struggle with the being of your own construction, which threatens to crush you. Your hands and voice have been raised to coerce those classes of society from which you spring, and from which your power is derived; you assisted to destroy the balance of power in the state, and now feel the consequences. Let us forget the past, my lord, and provide for the future; the name of Russell enjoys a prestige in its favour which a mistaken line of policy cannot obliterate. The great fault of rulers of the past and the present age has been, and is, to establish monopolies, and thus concentrate in the hands of a few individuals the power, the wealth, and the resources of the country. The church stands foremost in the struggle, and rank, wealth, and speculation follow close behind. Even the petty bodies of the kingdom raise their standards, and exult in the prospect. The medical corporate bodies think they may act with impunity under your lordship's Administration, and already grow confident of success.

Let me be more specific. The Royal College of Surgeons of England are now busily engaged in the attempt to establish one of the great monopolies of the age, in which they are supported by most, if not all, the other medical bodies where they have any influence, or over which they exert any control. They lead the way—the rest follow; it is in vain that a few honourable individuals resist the attempt—the majority triumph.

I shall not dwell on all the objects for which the body was founded, and for which corporate bodies are established. I shall only mention the support and protection of its members, and the education of medical youth. The former of these has given them but little trouble—they were not interested in the matter. The latter has been a matter of pecuniary interest, and has received much of their attention.

Let me consider what they have done for it and for themselves. Medical education is conducted in the hospitals and schools of the metropolis. The hospitals are immediately under the control of the Court of Examiners of the college, inasmuch as its members or their immediate friends have the government of these public institutions in their hands. The nominal heads are the general committee; the real are, the medical committee, who examine the names of the various candidates, and recommend them, or otherwise, for appointment.

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Having thereby established a monopoly of hospital education to an extent and with results which I shall hereafter more fully explain, they have turned their attention to the schools, and are now engaged in obtaining the same results with regard to these.

For many years past, it has been the desire of some of the members of the court of the college to erect colleges for medical education, instead of the former schools in the metropolis. Their first step towards this has been to form schools attached to the principal hospitals; this having been done, their next is to dignify these with the name of college, and to fill their classes by the drawing students from other metropolitan schools. The private schools, or those not connected with hospitals, are, therefore, marked for destruction, and every means had recourse to for their annihilation.

Formerly, anatomy, one of the principal branches of medical education, was taught in schools founded and carried on by private teachers, amongst whom the distinguished names of Joshua Brookes, Carpue, and others stand prominently forwards. These schools were established and recognised by the college with much difficulty. The teachers succeeded, or otherwise, according as they displayed the talents necessary for their undertaking. But the court of the college began to throw impediments in their way, the most serious being the necessity of having a complete school for medical education, including a surgical lecturer, such lecturer being an hospital surgeon; the difficulty of procuring which was great, or in some cases impossible, as hospital surgeons are so much influenced by, and in the power of, the court. Owing to these impediments, private schools have languished, and even now all but extinguished, in the metropolis. The court still persevere, and continue their endeavour to destroy their rivals: with what injury to those engaged in the study of medicine and the subject of medical education, I shall show at a future opportunity; with what advantage to those members of the court who are proprietors of rival establishments, is too evident to require explanation.

The formation of King's College and University College aids them in their efforts: the former is supported by the same party who now dispute the authority of the Crown; the latter, by men who are not likely to impede the accomplishment of ends which favour their own enterprise. The monopolists will have their support. Private enterprise is thus sought to be extinguished, to add to the emoluments of men acting in a twofold capacity—as the rivals of private teachers and the dispensers or withholders of their sanction to teach. The result need not be stated. The consequences are not so immediately obvious, but I will undertake to prove that they tend to the injury of the rising generation of students, and the deterioration of medical education.

Will your lordship sanction such proceedings, and act in opposition to those liberal principles which you have always advocated? If freedom from restraint, encouragement of private enterprise, and the support of honourable competition form your political code, as I trust and believe they do, you will not—you cannot.

I propose in other letters to place before your lordship the abuses which have already appeared in the management of our hospital and other medical educational establishments, and those likely to ensue unless some higher power than those already opposed to these encroachments on private right should interpose; and beg to subscribe myself your lordship's obedient and humble servant,

ESCULAPIUS.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Continued from page 351.)

(John Ayrton Paris, Esq., M.D., President of the Royal College of Physicians, London, called in, and Examined.)

A QUACK PHYSICIAN.—The last instance of that I have fresh in my recollection from the absurdity connected with it; it was a licentiate of the college; amongst other absurd things which he did, he became the proprietor of a nostrum, which he called "Water from the Pool of Bethesda," and hearing of this we sent a person for a bottle of the water from that celebrated pool; and the directions with it were, that it was to be placed upon a shelf and after some time it would become turbid, and that was an intimation that the water was troubled, and that it was to be then swallowed immediately; but this water was kept by the gentleman for a considerable time, and it underwent no change; a remonstrance was then made to this doctor, and the answer he made was, "I will explain it to you directly; you bought a guinea bottle, and the quantity of water is so small that you cannot discover the change which it undergoes; but if you will buy a five-guinea bottle, you will find that it will become turbid to your utmost satisfaction," That gentleman was suspended for some time, and his name left out of the list; that is the last instance that I remember, and that must have been ten or twelve years ago.

WISDOM OF THE COLLEGE AUTHORITIES.—Though some physicians may practise in London, and many in the country, without our licence, and though some even resist our authority, I am of opinion that, upon the whole, the power exercised by our college has been conducive to sustain the literary attainments of the profession and their honourable and moral conduct. That is the result of my experience as a member of the College of Physicians, and as now presiding over it. I have the strongest opinion upon that point.

DISASTROUS RESULTS OF ANNIHILATING THE POWER OF THE COLLEGE.—The abrogation of this power would destroy the profession, in my opinion; the grade of physicians would no longer exist. If the charter of the college were abrogated, and our powers at an end, I think that the profession to which I belong would not gain in public estimation, nor would the public gain from the lower standard of the qualification of physician. That is my decided opinion. No complaints have come within my knowledge, or have been preferred to me, nor am I cognizant of any complaint of any abuse of power or authority, as exercised by the college. No complaints have been addressed to the college of abuse of their power and authority, that I am aware of. To Parliament representations have been made of the abuse of our power; in the various attempts made to obtain reform, I have no doubt that statements against our college have found their way into various petitions.

HOW THE REGISTRATION BILL WILL BE INJURIOUS TO THE COLLEGE AND PROFESSION.—We stated in our petition that, by clauses 3, 10, and 31, in the bill now before the House, taken in conjunction with Schedule B., all medical practitioners would be reduced to one grade, whatever might be their respective qualifications. I will point out to the committee how those clauses, taken in conjunction with Schedule B., would operate in producing the effect which we predicate to them, of reducing the profession to a single faculty. Clause 10 enacts, "That every person who shall be registered, and shall possess a certificate in force according to the provisions of this act, shall be entitled, without other licence than such registry and certificate, to practise medicine throughout that part of the United Kingdom for which his certificate was issued." All that he requires, therefore, is to be registered. And then, in conjunction with clause 31, which is the explanatory clause, it is enacted that the words, "medicine" and "medical," when used in this act, shall also mean and include the words, "physic," "surgery," and "surgical." It appears, therefore, that any person who is registered, whether medically or surgically, can perform all the duties of a physician or a surgeon, or a general practitioner, or apothecary; all he requires is to be registered. It does not signify in what way he is registered, because "medical" and "surgical" are synonymous terms; it signifies, therefore, very little whether he is registered as a surgical practitioner or a medical practitioner; they are one and the same thing. Then, by the registration under this bill, in the manner prescribed by the bill, it is my opinion, that whatever may be the respective literary, scientific, or practical qualifications of parties so obtaining a privilege or licence to practise without any test of their respective qualifications as physicians, as surgeons, or as dispensers, they may interchangeably or collectively perform all those functions. There seems to be no test whatever except the diploma or licence which they obtain from some chartered or legitimate body; it appears that there is no examination testing their qualifications, and they are then registered; the respectability or amount of their knowledge, of course, is only to be gathered from the certificate or diploma which they bring. In my opinion, the effect of granting the same professional privileges to medical practitioners of the lowest qualification as are now granted or distributed to men possessed of the highest would be to lower the general standard of the profession, both literary and professional. I think the inducement to an extended preliminary education of the highest grade would be much reduced; the highest grade would cease to exist. If that should be so, our profession would not any longer be a learned profession. The members of our profession who rise to pre-eminence in the college and in practice in London, generally have gone, before they commence practice, through a long course of literary study. They are scholars generally. Their scholarship is tested both by our college and frequently by the universities before they come to our college. My experience leads me to think that to the public those high attainments and that literary education give security for greater intelligence, and to science itself greater chances of knowledge by which it may be extended and perfected; and I have no doubt that the abrogation of our charter, ceasing to hold out inducements of this kind, would greatly lower the standard of the profession in the metropolis. I think you could not lower the standard throughout the metropolis without lowering it in every other part of the kingdom. From my knowledge of the practice of physicians, I should say unquestionably that a preliminary literary education enables the practitioner to extend medical science and to advance knowledge. The effect upon the profession generally of the extinction of the most highly-educated class in that profession would be to reduce it to one grade, and the general tone of the profession would be very much lowered indeed. To the old members of the profession, such as myself, occupying a station in the profession, and to physicians of great eminence, such a result would be a matter of indifference, any further than as we have a desire to see the profession confined to highly respectable people, as it is at the present moment; but personally the bill would not affect any of the seniors of the college. My place in the profession and the college is already attained. The degradation of the rising members of the profession would be a matter of personal indifference to us, except so far as the welfare of society at large is concerned; nor have we any interest in the college from its personal relation to ourselves. We are supporting the college upon this great principle, because we are satisfied that the existence of the college is essential to the welfare of the profession; but as far as we are concerned individually it is not of the slightest importance. We have no funds at our disposal, and no places to give away, and no personal influence arising from it; and we have, therefore, no motive operating upon us to induce us to sustain the college, except that which operates upon us in the conscientious discharge of a public duty. I am aware that this bill would, by the system of registration contained in it, open to the profession the right to practise in different parts of the United Kingdom.

DEFECTIVE STATE OF MEDICAL EDUCATION.—I am quite convinced that at the present time there is not, throughout the different parts of the United Kingdom, sufficient care taken to ensure an equal standard of qualification to justify an

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equality of privilege; there is every possible shade of difference in the various institutions of the country as to education, and as to what is required of candidates, and also as to duration with regard to residence; every university school has its own peculiar laws with regard to them. If you can by any means establish a uniformity of education, we are very ready to grant reciprocity of privileges. Taking the licensing bodies in the different parts of the United Kingdom as now constituted, and as exercising their power of licensing unchecked at present, security is certainly not given to the public of equality of attainments. I have considered very attentively Clause 23 of this bill, which offers the security of uniformity of education and qualifications by the means proposed to be therein taken.

Educational Clause of Registration Bill.—I do not think that that clause prospectively provides the security which is now wanted for equality of attainments. With all respect and due deference, I regard the Secretary of State and the Queen in Council as inadequate to discharge the duties that would be imposed upon them; they could only do it by calling in to assist themselves assessors; they must consult medical men; and, therefore, you are getting rid of the College of Physicians in order to introduce assessors; it would come to that. How can the Secretary of State possibly, amongst all his multifarious duties and occupations, superintend such an examination as would be satisfactory? He must have assessors, and who are those assessors to be? The effect of Clause 23 would be to transfer some of the most important functions of the existing corporate bodies to the registrars. The powers now exercised of examination by the corporate bodies would, in point of fact, be transferred under Clause 24 to the officers appointed by the Secretary of State; and it appears that a physician, a surgeon, or an apothecary might come to sit in our college, supposing the examinations are to go on (which I doubt very much), and might report to the Secretary of State his opinion on the validity of our examinations. It would be possible for the Secretary of State to appoint an apothecary to come to an examination of a physician, conducted by our four censors, and sit in judgment on our examination. And that apothecary might report to the Secretary of State that those four censors, being the most eminent physicians in London, conducted the examination, in his opinion, improperly. And the final decision, as to the adequacy or inadequacy of the examination by our four censors, under the superintendence of the inspector, must at last be decided by the judgment of the Secretary of State, upon a matter purely medical, purely professional; so it would appear from this clause.

Registration desirable.—I have not any objection to registration. I think that it would be for the good of the profession and the public that there should be an annual and a complete registration. When I say that, it appears to me desirable that the registration should be of that character, that, at once and without any difficulty, any person searching that register, with a view to obtain medical advice, should be able to know what the precise grade and qualification of the person is whom he sought in that register; the medical men should be registered in classes or grades.

RETURN OF THE MORTALITY IN 117 DISTRICTS OF ENGLAND.

For the Quarter ending December 31, 1847.

(Published by Authority of the Registrar-General.)

STATE OF THE PUBLIC HEALTH IN THE LAST QUARTER OF THE YEAR 1847.

The quarterly returns are obtained from 117 districts, subdivided into 582 sub-districts. Thirty-six districts are in the metropolis, and the remaining 81 comprise, with some agricultural districts, the principal towns and cities of England. The population was 6,612,800 in 1841.

57,925 deaths were registered in the last quarter. The average number of deaths deduced from the returns of the corresponding quarter of nine preceding years, and corrected for increase of population is, 46,549. There is, consequently, an excess of 11,376 deaths in the quarter. The deaths registered in the December quarters of 1845, 1846, and 1847, are 39,291, 53,093, 57,925; the mortality in the first is to that of the last quarter nearly as 2 to 3. The mortality, it will be seen in the subjoined table, was below the average in the autumn quarters of the five years, 1841—45, and above the average in the five years 1838—40, 1846—47.

	1838.	1839.	1840.	1841.	1842.	1843.	1844.	1845.	1846.	1847.
Deaths registered in the December Quarters of 10 years	40,173	41,740	44,186	39,293	39,662	42,688	44,080	39,291	53,093	57,925
Deaths which would have been registered if the mortality had been uniform, and the numbers had increased from 1838 at the rate of 1·75 per cent. annually	39,820	40,516	41,225	41,947	42,681	43,428	44,188	44,961	45,749	46,549
UNHEALTHY SEASONS. Difference above the calculated number	353	1,221	2,961	..	..	..	..	..	7,345	11,376
HEALTHY SEASONS. Difference below the calculated number	..	..	..	2,655	3,019	820	108	5,670	..	..

A slight increase in the mortality was noted in the returns of the June quarter, 1846; the mortality in the following hot summer when the potato crop failed was excessive; cholera and diarrhœa were epidemic: in the autumn of 1846, as well as the winter and spring quarters of 1847, the mortality was still higher; scurvy prevailed in the beginning of the year, but in the summer the public health appeared to be slightly improved. Epidemics of typhus and influenza, however, set in, and made the mortality in the last quarter of 1847 higher than in any quarter of any year since the new system of registration commenced.

Deaths registered in each of the Four Quarters of the Nine Years 1839—1847, *in* 117 *of the Districts of England and Wales.*

Quarters ending	1839.	1840.	1841.	1842.	1843.	1844.	1845.	1846.	1847.
March	42,410	46,376	46,967	44,903	43,748	46,136	42,949	42,650	56,109
June	41,244	42,071	39,133	38,569	40,343	38,977	40,847	41,794	51,397
September	37,317	39,498	36,058	39,499	36,953	38,935	36,139	51,497	49,419
December	41,740	44,186	39,292	39,662	42,608	44,080	39,991	53,093	57,925
Total	162,711	172,134	161,450	162,543	163,659	168,126	159,926	189,134	214,850

The deaths in the year 1845 were 166,000; in 1847, 215,000. The excess in 1847 is 49,000! or not less than 35,000 over the corrected average of 1839—45. The districts from which the quarterly table is made up have hitherto returned less than half the deaths in England; but it is not probable that the country districts have suffered to the same extent as most of those in the return.

In London the deaths registered in the quarters ending December 1845—46—47 were 11,838, 13,221, and 18,553 (13 weeks). The greatest number registered in any quarter of the nine previous years was 14,686 in the severe winter of 1846.

DR. BERNCASTLE AND THE CROYDON CASE.

[To the Editor of the Medical Times.]

Sir,—I have been anxiously expecting an announcement to the effect that the profession had made the cause of Dr. Berncastle their own. If we neglect this eligible opportunity of settling once and for ever the *quæstio vexata* between the public and ourselves, as to our gratuitous aid, at all times and under all circumstances, being under their control, then I think we deserve not only all the indignities hitherto hurled at us, but become hungry suppliants for such as are in store.

The Croydon board have prostituted office to persecute an individual, and, by a publication of their resolutions, have grossly libelled a private practitioner whose patient they had repudiated. "For every wrong there is a remedy," says English law. That Dr. Berncastle has been wronged none will doubt; let English law supply the remedy, which I feel certain it would do, in swinging damages upon an action for libel. Dr. Berncastle has behaved himself nobly towards his profession by refusing to compromise their interests, and they are bound to support him and bear him harmless in this suit if he will still further oblige us by entering upon it.

There is now the finest opening for planting the standard of Medical Reform that has occurred in this country for several years—such as would cast all parliamentary and other vapouring into the shade. How much benefit has accrued to the profession by a few "legal" decisions that the practitioner is entitled to charge for his visits; and how much must accrue by a legal decision that he is not compelled to work for nothing!

Dr. Berncastle has been condemned by a public body, and therefore has an appeal, but hundreds of practitioners have been similarly condemned, privately, insidiously, and maliciously,—without hope of appeal. A fitting opportunity offers, and let the law establish our proper position. I am not ashamed to plead equally guilty with Dr. Berncastle under [illegible] lar circumstances. I also, at one time, refused attendance in a stray midwifery case without an [illegible] which was refused; time permitted the removal of the patient to another parish, where an order was given to another practitioner, who received (their case being preternatural) at least £1, but, as I believe, £2. Had I yielded to popular clamour, I should have been guilty of robbing my own wife and children by squandering time which ought to be devoted to their support, and further guilty of robbing my neighbour, his wife, and family, of one or two pounds.

My pocket is not overflowing with the abundance of my union salary, nevertheless I shall be most ready with my subscription towards defraying the expense of an action for libel which will result to me in the comfortable assurance that, if in the discharge of my duties I meet a premature grave, my family will be enabled to receive at least some compensation for the services which hastened me thither.

The matter might be advantageously taken up by the Provincial Association, the Association of Union Surgeons, or by a special association for this particular purpose.

There can be little doubt, after his noble conduct hitherto, that Dr. Berncastle would permit proceedings to be carried on for the sake of his brethren; but for us to stand by and see him grossly victimized would be an indelible stain upon the honour of our profession.

I am, Sir, yours faithfully,

Quid pro Quo

GOSSIP OF THE WEEK.

Apothecaries' Hall.—Gentlemen admitted members on Thursday, Feb. 17:—Samuel Franceys Gosling, Congleton, Cheshire; John Orred, Liverpool; Charles Devonport Rook Symons, Devonport; Thomas Hore Graham, Stoke, near Devonport.

Naval Appointments.—Assistant-Surgeons: Thomas Hunter, to the Ganges; Allan Brown, to the San Josef; Richard D. Pritchard, to the Blenheim; Fysher Negus, to the Caledonia; William R. Cockburn, to the Havannah.

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On Friday, the 18th of February, a deputation from the Committee of Poor-law Medical Officers was favoured with an interview with the council of the Royal College of Surgeons. The deputation, consisting of Dr. Hodgkin, Mr. Vallance, Mr. Mitchell, Dr. Barnett, Mr. Lobb, Mr. Lord, Mr. Bottomley, and Mr. Peter Martin, were received by the president, Mr. Travers, and by Mr. Green and Mr. Stanley, the vice-presidents of the college. The deputation stated in detail the evils attending the present system of medical relief, both as regards the medical profession and the sick poor, and submitted to the college the heads of a plan they had agreed upon, as containing the principles of a better system. They reminded the college that the only improvement which had hitherto been made in the system since the introduction of the new poor-law, had been in a great measure owing to the exertions of Mr. Guthrie, and explained that, by the general reduction of salaries consequent on the medical order, the change had partially failed in giving the relief intended. The deputation particularly dwelt on the necessity of placing poor-law medical relief under competent professional control. The president and vice-presidents of the college assured the deputation of the interest felt by them in the matter, and of their approval of the principles set forth by the deputation. Without committing themselves to the details of the plan, they gave an assurance that it should have the full consideration of the council, and intimated that the council sympathized fully with the objects contemplated by the committee of medical officers, and would be ready to give them its active support.

Medical Registration.—The committee was nominated as follows:—Sir James Graham, Mr. Rutherford, Mr. George Hamilton, Lord Robert Grosvenor, Sir Henry Halford, Colonel Mure, Sir Robert Harry Inglis, Mr. M'Gregor, Mr. Walter, Mr. French, Sir Thomas Birch, Mr. Osborne, Mr. William Lascelles, Mr. Wakley, and Mr. Grogan. Power to send for persons, papers, and records. Five to be the quorum.

Medical Relief.—The following cases occurred in a union in Sussex:—Three cases—two of typhus fever, and one of severe abscess connected with the knee-joint, in which a pint of pus was discharged daily—were ordered port wine by the surgeon of the union, and in each case "home-made port" only was allowed by the board of guardians. This wine, a species of sloe juice, was procured at a grocer's shop, at 1s. 6d. the bottle. Death occurred in all the cases, and it is only within the last few days that the surgeon has found his patients had been taking this wretched substitute for genuine port.

Deaths in Glasgow in 1847.—The mortality tables for Glasgow for the year ending Dec. 31, 1847, have just been prepared. The number of deaths is 16,886, being a total quite unprecedented in the annals of the city, and exhibiting an increase over 1846 of 7250 deaths. The proportion of deaths far exceeds the cholera year. The great mortality has arisen from the frightful immigration of diseased Irish, from whom fever has spread throughout the community. Upwards of 7000 bodies have been buried at the public expense during the year.

The London Fever Hospital, King's-cross.—On Friday the annual meeting of the supporters of this institution was held at the Freemasons' Tavern, to receive the report for the past year. The Earl of Devon, the president of the institution, in the chair. The report stated that in the year 1843, which was remarkable for the excess of fever, there were 1462 cases admitted; in the year 1844 there were but 646 admitted; in the year 1845, 559 admissions; and in the year 1846, they amounted to 568. The average still diminished in the early part of the last year, the admissions being 47 in January and 19 in February. After that period the cases gradually increased; in March they were 41; April, 70; May, 178; in November they diminished to 121, and in December to 114. The admissions between March and November amounted to 1258, and the total in the year to 1462. The majority of the cases were those of the Irish poor, who were in extreme exhaustion, being destitute of clothing, and in want of food; out of the number of patients 114 had died. The accounts showed that the sum of £1446. 3s. 4d. had been received, and £1993. 9s. 11d. expended, leaving a balance of £517. 6s. 7d. against the society. In the course of the proceedings a communication was made to the meeting that it was the intention of the sanitary commissioners to open a correspondence with the governors of that institution, in reference to the site taken for the erection of a fever hospital in the Liverpool-road, which was in the midst of a dense population.—The noble chairman remarked that the same objection could be made against any spot of ground taken by the governors.—The president was rechosen, with the committee and the other officers (the Hon. Algernon Herbert, a trustee, being elected vice-president, in the room of the late Archbishop of Canterbury). Thanks were voted to his lordship, and the meeting separated.

Scarcity of Leeches.—The *Amtsblatt* of the Royal Government of Liegnitz states, that formerly the leeches were so abundant in the Silesian waters, that there was an ample supply for the whole province, and at low prices. Latterly the scarcity of these valuable creatures has not only called for their importation, but the price has been so greatly increased by it that the application of this remedy is often attended with the greatest difficulty. This scarcity is chiefly owing to the reckless leech-catching by incompetent persons in strange waters, in consequence of which some have been quite deserted. An order has, therefore, been issued, that after the 30th of January all leech-catching in strange waters shall be liable to a heavy penalty; and all persons possessing such waters shall be bound to use their best exertions for promoting the increase of leeches.

Dr. W. Reid Clanny on Cholera.—In the year 1834, I published the results of many experiments upon a most difficult subject, viz., the nature of human blood; and therein proved by chemical experiments that which had been heretofore a *questio vexata*, *i. e.*, whether the air we breathe found its way into the systemic circulation? Those experiments were performed *in vacuo*, and proved incontestibly that the atmospheric air passes by *endosmose* through the air-cells of the lungs, is received by the extreme branches of the pulmonary vein, and thence from the left to the right heart. Two years afterwards, Professor Magnus, of Berlin, confirmed these experiments by the medium of transmission of pure hydrogen into blood received from different animals. The halitus with which the air-cells of the lungs are bedewed, and which has its origin from the serum of the blood, by the process of *exosmose*, into the air-cells, undoubtedly suspends sufficient free carbon, in such quantity as, by uniting in a direct manner with the inspired oxygen, forms carbonic acid gas, and consequently sufficient animal heat is thereby extricated to keep the temperature of the lungs, at least, equal to that extricated in the systemic circulation, even in the coldest climates. These experiments prove that a portion of the inhaled oxygen is absorbed into the systemic circulation, and in the bloodvessels comes into contact chemically with the free carbon of the blood. The proportion of nitrogen in atmospheric air respired is not essentially altered. The absorption of oxygen and the separation of a portion of carbon, therefore, are the causes to which arterial blood owes its property of being the sole stimulus of living structures. Venal blood which has not undergone this change has a poisonous action on the organs of the body, particularly in the nervous system, its action being similar to that of carbonic acid, sulphuretted hydrogen, and some other gases, by which irritability of the organs of the body is destroyed, and by most of which the arterial blood is darkened in colour. Undoubtedly all organic processes are greatly dependent upon the influence exerted by the nerves on the organic portions of the body, as Home and Brodie have proved; and it cannot be denied that the reciprocal actions between these organs, and the nerves generate a considerable proportion of animal heat. We are assured, therefore, that the object which the respiratory process is intended to attain, is evidently the absorption of oxygen into the blood, which conveys that gas as a stimulus to the different organs of the body; and the removal from the blood of the carbonic acid which is formed in the course of the circulation. The external layer of the organized skin seems to possess very feeble absorbent power; and, consequently, we are not for a moment to suppose that gases, whether pure or in the form of gaseous fomites, find their way into the system by the skin. From recent investigations by Herschel, Whewell, Peacock, Lloyd, and Sabine, we are assured that the march of the magnetic phenomena in this region of the globe is steady, rapid, and in a westerly direction. May we not from this fact conclude that the Asiatic cholera which reached Sunderland from the east in the autumn of 1831 was conveyed to us by atmospherical or terrestrial agency? Moreover, we find from "Dr. Hecker's History of the Black Death," or great pestilence of the fourteenth century, which desolated Asia, Europe, and Africa, had its progress from the east to the west. In the progress of natural phenomena from east to west, that great law of nature is plainly revealed, which had so often manifested itself in the earth's organism as well as in the state of nations dependent upon it. This town has frequently been visited by typhus of a severe type; at one period it was not only malignant but assumed the petechial form, or spotted fever as designated in our vernacular language. We may divide infectious agents into those which, like germs, are capable of reproducing and of multiplying themselves as organized bodies, and into those which are devoid of this character, and require for their propagation certain accessories, without which they will not appear. The former of these represents contagions; the latter infections. In Sunderland we have for many years found that infection shows itself amongst persons residing in low, close, ill-ventilated, dirty houses and situations, especially in streets in which animal and vegetable substances undergo decomposition, and by which the air is frequently poisoned. The window-tax has ever been a source of regret, particularly amongst members of the faculty—for where light is kept out filthiness must prevail—even in the houses of persons in easy circumstances. This tax is also another source of defective circulation of atmospheric air. It is a known fact that light is a disinfectant. My late and much-lamented friend, Dr. Henry, of Manchester, described to me, many years ago, and soon after the visitation of cholera, the results of his experiments in proving the disinfecting power of heat in typhus and scarlatina. He placed articles of clothing in long iron cylinders, and for an hour kept them in an atmosphere at 200 deg. Fahr. It must be acknowledged that this plan is superior to the use of chlorine gas, which, in general, affects the lungs when used near to the patient, and even chloride of lime, into which articles such as linen rags are moistened and suspended round the room, and which is often offensive to the patients, and hinders respiration. Tubs of pure water should be at hand, into which all clothing, whether worn by day or night, should be immersed, and washed with white soap.

The Cholera.—In several districts of the Transcaucasian region, especially at Tiflis and its vicinity, it was remarked last summer, shortly before the appearance of the epidemy, that the bees displayed a prodigious activity. The gardens and meadows were covered with them. They were met in swarms carrying, as a booty, a quantity of honey and wax; but the moment the malady declared itself they kept themselves concealed in their hives, which they had hermetically closed with wax. It would be interesting to ascertain if the same phenomenon was observed in the other parts of Russia where the cholera prevailed."

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NOTICE.

Subscribers in Arrear are respectfully requested, in conformity with the terms of their subscriptions, at once to forward their remittances to the **office**.

TO SUBSCRIBERS.

☞ The subscription for the stamped edition of the *Medical Times* is 15*s.* for the half-year, and £1. 5*s.* for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfrae.

MORTALITY TABLE.

For the Week ending Saturday, Feb. 19, 1848.

Causes of Death.	Total.	Average of 5 Winters.
All Causes.....	1134	1107
Specified Causes...	1102	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	302	184
Sporadic Diseases.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	47	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	120	138
Diseases of the Lungs, and of the other Organs of Respiration	213	225
Diseases of the Heart and Blood-vessels.....	28	39
Diseases of the Stomach, Liver, and other organs of Digestion	58	62
Diseases of the Kidneys, &c.	15	9
Childbirth, Diseases of the Uterus, &c	11	13
Rheumatism, Diseases of the Bones, Joints, &c. ...	7	8
Diseases of the Skin, Cellular Tissue, &c.	3	1
Old Age.....	42	79
Violence, Privation, Cold, and Intemperance.....	32	31

TO CORRESPONDENTS.

Mr. Caton's papers have been received.

"Sigma."—The name of the person will be found in "The Medical Directory" recently published, in the list of persons whose qualifications are not known.

"Sydenham."—The registration of births, marriages, and deaths, by the parish clerks, cannot be relied on. Under the present system there is a near approximation to truth. The causes of deaths, however, cannot be exactly relied on, as in many instances unqualified persons give certificates which are received by the deputy-registrars.

"Investigator's" paper "On the Philosophy of Existence" is not suitable for our columns.

"Cantab."—The work was printed at the Pitt Press. Consult the "University Calendar."

"Mr. Foster."—The work may be consulted with advantage, and is worthy of a place in the library.

"M. D., Dublin."—The London College of Physicians is, we believe, about to issue a new Pharmacopœia. We have not heard that it will be published in the "vulgar tongue," nor do we think that it is likely.

"Scrutator."—We must be permitted to prefer our own judgment in reference to our correspondents' communications. While they are not devoid of merit, we decline publishing them, as they would not sufficiently interest our readers.

"An Unfortunate Surgeon."—There is no remedy in the County Court, as our correspondent would have to show that he is a licentiate of the Apothecaries' Company, London.

"Stephanas."—Druggists are not compelled to undergo an examination before they engage in business in London. The Pharmaceutical Society's *diploma* is obtained, because it is supposed to confer on the possessor a little honour. We cannot offer an opinion upon the examination which a candidate for it is required to undergo.

"Magister Artium."—1. A physician with a German diploma has no legal right to practise medicine in England. 2. The sale of diplomas by "agents" has been stopped.

"Dr. Newberry."—The communication was furnished to us by the surgeon immediately after the fatal occurrence.

"A Member and Licentiate."—We think that an advertisement would not produce the wished-for result. The appointment is neither permanent nor lucrative.

"Iota."—Apprenticeship is not required by the English College of Surgeons.

"A Medical Student, Bristol."—The passage from Celsus has exercised the ingenuity of his medical commentators. It is supposed that the disease referred to was inversion of the uterus.

"Scotus."—The licence of the Apothecaries' Society constitutes a legal title to practise in England and Wales.

"A Regular Contributor, Oxford."—A discussion upon the origin of the medical term referred to would be more curious than useful. It is compounded of two Greek words, and is not defined by any Greek writer.

"R. N."—The effusion is usually preceded by an attack of febrile symptoms and an inflammatory affection of the part resembling erysipelas; and these feverish symptoms have a tendency to recur, though often at irregular intervals, so as to resemble somewhat an erratic intermittent.

"Consistency."—Our correspondent is alarmed without reason. We have not yet dealt with the subject.

"Dr. Henderson."—1. Yes. 2. In July last. The papers requested shall be sent at an early opportunity.

"Argus, Cheltenham."—The publication of the article would expose us to an action for damages, and do no good.

"A Liverpool Subscriber."—A qualified practitioner can charge a fair sum for attendance as well as medicines. The case would be successful in the County Court.

"P. B., Sunderland."—The lecture on Animal Magnetism has been received.

"Young Physic" is evidently inexperienced. We are sorry that his request cannot be complied with.

"Amicus."—The classical examinations must be first passed.

"T. T. B."—Sulphuric acid may be distilled regularly, and with but little danger, by dropping into the retort a few pieces of platinum foil.

"Leonard F., M.D."—The lectures will be published regularly till completed.

"Medico-Chirurgus" writes us, in reference to chloroform, "that it is an agent which as yet cannot be thoroughly trusted. In two cases under my superintendence it produced violent muscular spasm. In three other cases sickness and headache supervened after its inhalation. The chloroform I believe to be good, having obtained it of one of the first chemists in London."

"Mr. Wm. Hallam, Newcastle, Staffordshire."—Paper "On the Use of Chloroform in Midwifery" received.

"H. A." is thanked for his analysis of "The Provincial Medical Directory."

"A Constant Subscriber, Manchester."—It is probable that the matter would be closely scrutinized in court, and facts might be elicited which would sustain a prosecution under the Apothecaries' Act.

"P. L. S., Liverpool."—The natives of tropical climates generally use a vegetable in preference to an animal diet.

"Mr. A. W. Close, Manchester."—The case of cesarean section by Mr. Goodman has come safely to hand.

"Mr. Evan Thomas, Cumberland Infirmary."—Communication received.

"Mr. J. Jones, Llanfan, Montgomeryshire," is thanked for his communication, and his suggestions shall be attended to.

"An Annual Subscriber's" paper "On Impregnation" is under consideration.

"Dr. G. W. Maxwell, Calcutta."—The communication entitled "A Key to Cholera" received.

"Mr. John Robinson Chapman" is, of course, not the *soi-disant* Mr. Chapman going about asking alms.

"Mr. Maxwell, Priors Lynn," is thanked for his suggestions.

"M. D.'s" letter last week "on Dr. Lee and the Nerves of the Heart," should say, instead of "live like," &c., "lied," &c.

"Mr. W. R. Wilde, 15, Westland-row, Dublin."—Letter received.

"Dr. Wiglesworth, Swansea."—Communication has been received

Dr. Willshire's lecture is unavoidably postponed till next week.

Dr. Bushman's paper on the Progress of German Medical Science is also deferred till next week.

"M. D."—By Lord Denman's decision in the celebrated Hounslow case, the coroner is bound to seek unbiassed testimony in calling in an additional medical witness. The custom of carrying about a private friend, to give medical testimony at inquests, subjects the party to the penalties of a misdemeanour. Till we abolished it, this custom was as common in Middlesex as in the county our correspondent names.

"A Looker-on," who writes an anticipatory condemnation of the "coming charter," and insists that it will place in jeopardy the improving position of the general practitioner in this country, should wait, like ourselves, before pronouncing a positive judgment, till the details of the document are before him.

"A Medical Officer, Lincolnshire."—We have endeavoured to make room for the letter in vain.

The letter from Bulwell may be delayed, we consider, under present circumstances, with advantage.

"Medicus" is thanked for his complimentary effusion to our alleged services to the profession, as well as for the proposition which accompanies it. We decline, however, to concur in the suggestion.

"J. H. B. writes to us, that when we printed from "The Annual Register," two or three years ago, the report of the case, "Wakley and the Hope Insurance Company," we did not publish the public certificate of Ex-Sheriff Parkins exonerating the plaintiff from having had any official concern in the public execution of Thistlewood. Our correspondent thinks that as the plaintiff is a surgeon and a public man, and as the circumstance is referred to in the report as a popular rumour, we are bound in fairness to him to publish the certificate. We were not aware of the document's existence, but, if our correspondent sends it to us, we have no objection to give it publicity in our next number. It has always been our study to do justice to both sides.

"A Subscriber" writes us: "In the numbers of the *Lancet* for July 17, 1847, and subsequently, will be seen an extraordinary suggestion of a physician to a dispensary for diseases of women and children, and one, moreover, which he shows by cases that he has several times put in practice, viz., the division of the hymen, in cases of virgins who have what he conceives to be an inflammation of the neck of the womb. Now, in all the annals of medicine there does not appear to have been a more monstrous proposition than this, or one calculated to make more mischief in families; yet the sapient *Lancet* has published the communication as if it were a great discovery. Women are sufficiently artful at present, and often enough pass themselves off to their husbands as maidens when they have no pretension to virginity; but, when they meet with a man who is not to be deceived on this point, they have at present no alternative scarcely but to confess the lie, or at least to let their husband remain assured that they have in all probability had prior intercourse with some other man, I say in all probability, because, even now, there are some rare cases where it would be wrong to say a woman was not a maiden because she had not presented the ordinary signs of virginity. But, if we are to have a practice like the one under consideration introduced, women (no longer maidens) may always boldly set forth to their husbands that their virginity was destroyed by the knife at the physician-accoucheur's recommendation! The introduction of such a practice, then (independent of the immorality to which it may lead among such surgical operators themselves), is calculated to increase the amount of profligacy among unmarried women of all grades in society. By the way, Parent Duchatilet, Lignac, and others consider the signs of virginity, even without any such operation, often now difficult to be assured of in many cases. Such is the aspect of the case in its moral bearings; let us now see if it is justified by necessity; for the physician who recommends it seems a conscientious man, and appears to think it is sometimes necessary for the cure of disease. But to this it may be replied, how does he know the powers of nature? and how does he know that a good course of purgatives, leeches to the hypogastrium, or other means, will not succeed at last? or even that nature herself may not suddenly cure this inflammation of the neck of the womb, just as she cures many other internal inflammations, sometimes without any physic at all? A woman, then, will be a fool who submits to have any operation of the sort performed. She had far better trust to the powers of nature, than stand the chance of bearing her husband's reproaches, should she have her hymen divided for any disease of the womb and then think of marrying."

"Medicus" wishes to know "If the Mr. John Edward Ryan, of Farningham, Kent (whose death was recorded in your obituary of the 19th instant), was the Mr. Ryan who was so shamefully persecuted by the drugmongers of Rhubarb-hall, some years ago; which proceedings were the more palpable, he being a qualified surgeon, and not a quack? This distressing case, Quackley, sen. (father of the gent who performs such far-famed operations), promised to lay in all its details before Parliament the instant his constituents returned him for Finsbury—Quackley's own words being 'that he would make the old hags bitterly rue their interference.' If this be the same personage, the Society of Apothecaries ought, in justice, from their overflowing coffers, to allow his bereaved widow a compensating pension; Mr. Ryan's untimely end being doubtless accelerated by their unjust treatment."

Letters and communications have also been received from Mr. Caton; Sigma; Sydenham; Investigator; Cantab.; Mr. Foster; M. D., Dublin; Scrutator; An Unfortunate Surgeon; Stephanas; Magister Artium; Dr. Newberry; A Member and Licentiate; Iota; A Medical Student, Bristol; Scotus; A Regular Contributor, Oxford; R. N.; Consistency; Dr. Henderson; Argus, Cheltenham; A Liverpool Subscriber; P. B., Sunderland; Young Physic; Amicus; T. T. B.; Leonard F., M.D.; Medico-Chirurgus; Mr. Wm. Hallam, Newcastle, Staffordshire; H. A.; A Constant Subscriber, Manchester; P. L. S., Liverpool; Mr. A. W. Close, Manchester; Mr. Evan Thomas, Cumberland Infirmary; Mr. J. Jones, Llanfan, Montgomeryshire; An Annual Subscriber; Dr. G. W. Maxwell, Calcutta; Mr. John Robinson Chapman; Mr. Maxwell, Pryors Lynn; M. D.; Mr. W. R. Wilde, 15, Westland-row, Dublin; Dr. Wiglesworth, Swansea; Mr. Spence, Manchester; M. D.; A Looker-on; A Medical Officer, Lincolnshire; Medicus; J. H. B.; A Subscriber; Medicus; Dr. Murphy, Fermoy; Mr. Handy, Rufford; Dr. Robertson, Newry; Mr. Croft, Bracknell; Mr. Brook, Chudderley; Dr. Healy, Dublin; Dr. Powell, Sligo; Mr. Pretty, Inessingfield; Dr. Hutchinson, Bridlington; Mr. M'Bean, Elgin; Dr. Cockran, Auchterarder; Dr. Mackay, Preston; Mr. Willows, Melton Mowbray; Dr. Menzies, Pitlochnie; Dr. Haile, Charlton-on-Medlock; Mr. Gregory, Higham Ferrers; Mr. Moore, Wilmslow; Mr. Chapman, Uttoxeter; Mr. Bonthrone, Crail; Mr. Phillips, Haverfordwest; Mr. Collyns, Dalverton; Mr. Coleby, North Walsham; Mr. Miller, Eye; Dr. Green, Youghal; Mr. Spurgin, Northampton; Mr. Ticehurst, Hastings; Mr. Ashton, Ramsbottom; Mr. Evans, Canterbury; Mr. Shepard, Usk; Mr. Leak, Hemsworth; Mr. Stevenson, St. Leonard's; Mr. Rayner, Birstal; Mr. Halder, Preston; Dr. M'Nab, Epping; Mr. Welling, Ravenstone; Mr. Gibson, Ambleside; Mr. Davis, Outerarde; Mr. Squibb; &c.

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By G. J. GUTHRIE, Esq., F.R.S.,

Read by Mr. HANCOCK, Surgeon to the Charing-cross Hospital, and Lecturer on Anatomy and Physiology at the Royal Westminster Ophthalmic Hospital.

Lecture V.

ON WOUNDS AND INJURIES OF THE CHEST.

The operation for empyema; ancient mode of operating; the modern methods by trocar and canula, and by incision; Dr. T. Davies' grooved needle; place of election; directions for the operation; comparative success of the operations by incision and by puncture with the trocar; admission of air into the cavity of the chest; opinions of Mr. Cock and Dr. Hughes on paracentesis thoracis, and on the admission of air into the cavity of the chest; M. Gozo's case of paracentesis thoracis for hydrothorax; in hydrothorax, the puncture should be closed immediately—in empyema, a permanent drain should be established; Dr. Th. Thompson's case; Dr. T. Davies' practice; the propriety of injecting fluids into the cavity of the chest; Dr. Gibson's case; case by Morand; case by Diemerbroek; case of Dr. Wendelstadt; case of musket-shot wound of the chest; case of penetrating wound by a Polish lance; cases of the operation by necessity; Messrs. Faure and Aubert's cases of external abscess communicating with the chest; lance wound of the chest; Dr. F. Bird's report of a fatal case of pistol-shot wound of the chest, under the care of Mr. Lynn and Dr. Roe in the Westminster Hospital; post-mortem appearances.

The operation for empyema appears to be of a right ancient and military origin. It has not been satisfactorily decided whether it was first performed on Phalereus, Jason, or Prometheus; and it is, therefore, said of all three, that each, being expected to die of an abscess in the lungs, declared to be incurable, went into battle for the purpose of getting himself killed, but, being fortunately only run through the body, they all recovered in consequence of the escape of the purulent matter through the holes thus made. It is certain that the operation was performed by Hippocrates and his successors, by the knife, by caustic, and by the hot iron. Ambrose Paré appears to have been the first who recommended a trocar and canula, and many instances of success in all ways are recorded. The modern methods are two in number: one by the trocar and canula—the other by incision; although there are few persons in England who would now resort to incision, unless there were reason to believe some extraneous matter required to be removed, even if it were only a portion of carious rib—a consequence, by no means rare, of long-continued disease. After penetrating wounds of the chest, in which the presence of a foreign body may be suspected, if not actually known, the method by incision will be essentially necessary, as will be hereafter shown.

The late Dr. T. Davies claimed the invention of a grooved needle for the purpose of exploring the cavity of the chest; but, as a trocar and canula are made as small, they may be safely preferred; if fluid should pass through the canula, a larger one may be introduced in its place, if thought advisable. In ordinary cases, the little wound should be closed immediately after the evacuation of the fluid, and it usually heals, if small, without difficulty, and the operation may be repeated, if necessary, with greater confidence. The introduction of the instrument gives but little pain, is rarely followed by any bad consequences, and ought, therefore, to be had recourse to much more frequently than it is at present, and at a much earlier period. Whenever auscultation and percussion give reason to believe that a fluid is collected, which medicine has not been, nor is, able to remove, the simple operation by the trocar and canula should be performed.

It is, in fact, merely an exploration. Care should, however, be taken that the point of the instrument is perfectly sharp, or it may separate the thickened false membrane from the inside wall of the chest, and, by pushing it before it, prevent the fluid from passing through the canula when the trocar is withdrawn. The place of election, in England, for a puncture in ordinary cases, is usually between the fifth and sixth ribs, counting from above, and between the sixth and seventh from below, and at one-third of the distance from the spinous processes of the vertebræ; or two-thirds from the middle of the sternum. If there should be any protrusion of the intercostal spaces, it may be a rib or two lower. The point of the instrument—one of which has now a place in every military case—should be introduced nearly midway between the two ribs, or a little nearer the lower than the upper, and pressed on until all resistance has been overcome. It is entered nearer the lower rib, to avoid the intercostal artery, and yet not touching the rib, lest it should induce a too forcible contraction of the intercostal muscles, when it is said the point might be suddenly raised and broken against the upper rib, and the operator much inconvenienced. In France, Sabatier, Pelletan, Boyer, &c., reckoning from below upwards, recommend the opening to be made between the third and fourth ribs; Chopart and Desault, even between the second and third, on the left side, and the third and fourth on the right; but the diaphragm would in all probability be wounded by a trocar, unless the fluid effused were in considerable quantity; Laennec, between the fifth and sixth from above, as in England.

If the person should be very fat, or the puffing of the integuments considerable, it may not be easy to feel the ribs, in which case even recourse should not be had to incision. When the arm is placed by the side, and bent forwards at a right angle, so that the hand rests on the ensiform cartilage, the inferior angle of the scapula will correspond in general, but not always, with the interval between the seventh and eighth ribs at the back part. The attachment, however, of the last of the true ribs, the seventh, to the xyphoid cartilage, can always be ascertained in front, and an error of importance cannot well take place, as the object in making a puncture by measurement is to avoid the diaphragm. Freteau, of Nantes, in his able paper on empyema, published in the "Journal Général de Médecine" for 1813, says that Dr. Lefond and himself performed the operation on the left side between the tenth and eleventh ribs, and on the right side between the ninth and tenth, in more than thirty dead bodies, and always opened into the cavity of the chest, performing it close to the edge of the latissimus dorsi muscle, or about three inches and a half from the spine—an operation which in this place should be done by incision, and not by the trocar. When there is reason to believe that there is an extraneous body to be extracted, such as a ball, the place of election is of importance, as it is desirable it should be a little above the diaphragm in order to facilitate its extraction; for although, by carefully shifting the position of the patient, a ball or a piece of bone may be brought to rest against the opening, it will not be easily taken hold of, unless it lies upon the diaphragm—a point which will be hereafter further elucidated. When an external swelling indicates the presence of matter, and there is reason to believe it communicates with the inside of the chest, the opening should be made into the tumour, which is called the "operation by necessity;" this is not an uncommon occurrence after gunshot wounds. The operation by necessity is not always, however, done in the most convenient place, and must then be repeated lower down, which will also be sometimes necessary in consequence of the matter collected in this way being cut off by adhesions from the general cavity.

When the operation by incision was alone performed, the success was certainly not great. Dupuytren said in his lectures that, in fifty cases he had seen, two only had entirely recovered. In more modern practice the success after the operation by puncture has been much greater. Dr. T. Davies lost only four out of sixteen patients. M. Mourgery, out of one hundred and twenty-two cases collected from different sources, noted eighty-six as having been successful. Dr. Roe, in his able memoir on paracentesis thoracis, published in the 27th volume of "The Medico-Chirurgical Transactions," records all the cases he refers to, and enumerates the deaths as six out of twenty-four, three of the twenty-four operations, and consequently three of the deaths, being done on persons in whom recovery could not be expected. The difference between these results may be attributed to the operation by puncture having superseded that by incision, and principally from the operation having been had recourse to at an early period. Dr. Roe thinks the proper period to have arrived when the inflammation has been subdued, and a large quantity of fluid remains in the chest over which medicine seems to have no control, and he believes, with Broussais, that this will be about the end of the third week. After wounds penetrating the chest, and which do not admit

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this effused fluid to flow out, it occurs much earlier.

When the operation is performed in a case of hydrothorax, or when the fluid is serous, it is generally called paracentesis thoracis, from παρακεντεω, "to perforate," under which circumstances it is possible that both sides of the chest may be affected; and it may be permitted to add, even in the present day, that both sides may not be punctured in succession, and that an error in puncturing the sonorous or sound side, instead of the dull or affected side, has been almost immediately destructive of life.

The admission of atmospheric air into the cavity of the chest during this operation has been much deprecated, and many inventions have been recommended for its prevention; but it is scarcely possible to prevent some air getting in. It is often seen to do so; and it is proved to have done so by auscultation, and it is usually absorbed in a few hours. In one case reported by Dr. Roe, and which I saw, it gave rise to distressing symptoms, from pressure on the lung; it was removed by a common syringe, to the great relief of the patient, and without inconvenience following. In all these cases two things must be considered. Can the compressed lung expand, so as to fill the chest when the fluid is withdrawn? The answer must be, that in a great number of cases it is so bound down by adhesions that it can dilate but slowly, if at all. If it be then asked, whether a vacuum is formed in the chest, the answer will be no; and it will then be admitted, on consideration, that air always finds its way into the chest, and that it rarely does any harm. Indeed, I believe from experience, that the admission of common air never does any harm, in persons in health; and that, when mischief ensues after an operation or an injury, it occurs from the irritation caused in a particular state of constitution, and not from the admission of air. If the wound into a cavity can be closed and healed, the air will remain with impunity. If the wound cannot be healed, inflammation may be propagated from it to the whole cavity with which it communicates.

Mr. Cock and Dr. Hughes published in the "Guy's Hospital Reports" for April and October, 1844, a valuable paper on "Paracentesis Thoracis," in which, in addition to other matters, they advocated two points, from which, with all due respect for the learning and ability they have so unequivocally shown, I have ventured to dissent: one is, the ill effects arising from the admission of atmospheric air; the other, the advantage to be derived from drawing off a part only of the effused fluid at the first operation, lest the air which must necessarily enter might continue to compress the expanded lung, although in a less degree. Dr. Hughes, in some papers published in the *Medical Gazette* for 1846, expresses a desire to modify these opinions to a certain extent: thus, for instance, he says, "On some occasions, when the effusion is recent, the whole of the liquid may be removed at once, without the admission of any air, from the expansion of the lung. The operation thus becomes a very tolerably correct indication of the state of the lung and of its capability of restoration, and thereby affords a substantial ground upon which to found a prognosis:" and again—"Unless the lung is capable of full and free expansion, we do not attempt to draw off all the effused fluid: we remove, indeed, only so much as the expanding lung and the surrounding compressed organs are capable of replacing. The opening is carefully watched, particularly during the acts of inspiration and of coughing; and when the stream begins to fail, the body is turned towards the punctured side, till there is at length an alternate flow and stoppage of the stream during the acts of expiration and inspiration. When this occurs we withdraw the canula; when, in fact, there exists a tendency for the external air to enter the cavity, that tendency is at once stopped by closing the aperture. Sometimes, it is true, a considerable portion of fluid is thus left behind." This fluid, if not absorbed, must be removed by another operation. The irritative quality of the air seems thus to be in a great measure given up, and it is probable that the retention of part of the fluid will follow, unless in cases attended with great debility; for, if the air does not prove a cause of serious irritation, it is much less likely to prove a permanent cause of compression, than an equal quantity of fluid. Some late French writers, and especially Messrs. Raybaud and Trousseau, placing greater confidence in the evils arising from the admission of air, have lately used bags made of gold-beaters' skin, or gut, or bladder, attachable to the canula, for the purpose of receiving the fluid as it escapes, and thereby preventing the ingress of air, which the following case by M. Goze, physician-in-chief to the Military Hospital of Marseilles, published in the 63rd vol. of the "Mémoires de Médecine et de Chirurgie Militaires," 1847, would seem to show is not always followed by serious consequences.

Case 12.—L. J., twenty-four years of age, of the 51st Regiment of the Line, was admitted into hospital on the 27th of September, 1845, with inflammation of the chest, the symptoms of which disappeared after forty-three days of treatment, leaving those of effusion. After fifty-three days' further treatment, the effusion being stationary, as well as the functional derangements which are the consequences, the left side of the chest was punctured between the third and fourth ribs, and seven hundred grammes, or thirty-ounces, of a citron-coloured limpid fluid were evacuated. Previously to the operation, the pulse was small and frequent; dyspnœa on attempting to walk; dulness of the side; respiratory murmur little sensible, without noise or râle, and distant from the ear; elevation of the ribs of the left side very limited. Three bubbles of air entered the cavity of the chest during the flowing out of the fluid, in spite of the efforts made to prevent it by closing the orifice of the canula with the thumb, as the stream appeared to be about to stop. The canula was withdrawn during expiration, and the wound closed. From the day of the operation the lung recovered its functions, the pulse its natural beat, the appetite improved, strength was gained. On the 6th of December, fourteen days after the operation, respiration was as complete on the affected as on the sound side. Sent home on leave; he was three months afterwards declared to be fit for service.

A more important question occurs in succession. Supposing that the constant admission of air does no mischief, is it more advisable that the patient should run the risk of inflammation occurring from the propagation of irritation, from whatever cause it may be excited, by keeping the wound open, and allowing a constant drain from the part; or should it in all cases be immediately closed? In all cases of serous effusions there can be little doubt that the fluid should be evacuated, and the wound closed. When the fluid is purulent, I am of opinion that a permanent drain should be early established. It is not common for the operation to be repeated several times, without the serous discharge becoming purulent; and in such cases it usually becomes necessary at last to allow the wound to remain open, until the discharge shall cease of itself. Dr. Hughes, in the *Medical Gazette* for 1847, has related a case in which the chest was punctured, consequent on pleuritis, fifteen times—the patient eventually recovering, without a permanent drain having been established, although the serous discharge became at last more puriform. In a very instructive case, recorded by Dr. Th. Thompson, in the 27th vol. of "The Medico-Chirurgical Transactions," the opening became permanent, after the chest had been four times punctured for the evacuation of a purulent collection. There can be no doubt, in such cases of internal disease, about the propriety of making the opening, between the fifth and sixth rib, a dependent one, by attending to the position of the patient; but having seen several cases in which an opening lower down, nearer the diaphragm, would have been more advantageous, as more likely to aid his perfect recovery when the patient was able to walk about, and even follow his ordinary occupation, I apprehend that whenever more than one opening is necessary, and the first is made between the fifth and sixth ribs, the succeeding ones should be made lower down; so that, when it is thought right to leave the last puncture to become fistulous, it may be made as near the diaphragm as may be thought consistent with the safety of that part.

When a doubt exists as to the probability of more than one puncture being sufficient, and it seems likely that a third, or even more, will be required, the surgeon will, perhaps, do well to anticipate this necessity, by keeping the wound open. Dr. T. Davies, whose cases were very successful, did this, by introducing a piece of gum-elastic catheter through the canula into the chest, to the extent of about three inches, enough being left outside to admit of its being secured by tapes and adhesive plaster. He says he never saw the gum catheter do harm, and he drew off through it a certain quantity of the fluid daily, until it ceased to be discharged; the elastic tube bending with the heat, and applying itself to the inside of the ribs. Whenever, in such cases, the lung rubs against it, which can be ascertained by a blunt probe, it should be removed, and the external wound kept open by a shorter and softer plug. In all these operations, care should be taken to prevent the occurrence of inflammation. The accession of pain in the part, of difficulty of breathing, of fever, should be met by cupping to a few ounces, by dry-cupping, by mercury in small doses, by rest, by diet, &c., and, if a plug has been introduced, it should be removed.

The propriety of injecting stimulating or even simple fluids into the cavity of the chest has been often advocated, and as frequently repudiated. It appears to me that warm water or milk and water are alone admissible, and that only when there seems to be an adventitious cause keeping up the irritation, which may, perhaps, be brought to the opening by the sudden abstraction of the injection. My excellent friend, Dr. Gibson, professor of surgery in the University of Pennsylvania, says, in his "Practice of Surgery," vol. 1, page 116, that he has succeeded in floating out with the matter pieces of cloth and bits of exfoliated bone by throwing in an injection of tepid milk and water. He says that in the case of the late Captain G., of the U.S. navy, wounded in a duel in 1810, his health improved so rapidly under their use, that he was able to take the command of a frigate at sea, where he remained for several months, with very little inconvenience. Finally he died, partly from constitutional irritation, partly from the reproduction of matter, and the detachment of portions of carious ribs and vertebræ, which found their way into the chest, lodged on the diaphragm, and could not be removed, he being averse to a counter-opening being made, as proposed by Drs. Parsons and Gibson, who, on examination after death, thought that, if the operation had been done, he might have recovered.

It is obvious that matter had been long pent up in the chest; that nature had made many efforts, before the ribs became carious, to evacuate it through the thick and hardened pleura, by ulceration. The operation in this case ought, I apprehend, to have been done between the eleventh and twelfth ribs behind.

Mr. Quekett has lately had an opportunity afforded him of injecting the false membrane, formed upon the pleura of a cheetah, an animal of the leopard species, which died at the Zoological Gardens of empyema.

In this case, the membrane covering the right side of the chest was upwards of one-eighth of an inch in thickness, and the vessels, which were very numerous, were found to be very readily filled from the arteries and veins. The membrane itself could be peeled off from the pleura with little difficulty. The fluid found in the chest contained flakes of lymph floating in it, and, when examined microscopically, was found to consist of numerous pus globules or cells, with lymph particles and globules of oil; the

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flakes, and the last portions of the false membrane deposited, were clearly made up of lymph particles, whilst that which was first deposited, and into which the arteries penetrated, had assumed more of a fibrous than a cellular character.

Case 13, by Morand.—A clergyman attacked by pleurisy in March, 1751, was reduced at last to that state of oppression of the chest, that he could hardly move, spit, or speak, and was supposed to be dying. Morand, who saw him on the 7th of May, finding that the whole left side was œdematous, decided on puncturing it, which he did to the great relief of the patient, evacuating six pints of serous fluid mixed with purulent matter. The distention of the chest rapidly returning, an opening was made into it seven days after the first puncture, and five pints of fluid, containing more pus than before, were evacuated. The wound was kept open by a tent of lint introduced for several inches into the cavity of the pleura. He suffered very much after this, and became so much emaciated that his life was once more despaired of. About the middle of June he began again to improve, the lint could only be introduced with difficulty, and a flat silver tube was substituted for it, through which the cavity of the chest could be washed out. After the 7th of September, the wound was dressed but once a day, the discharge being principally serous until the 15th of November, when it became entirely purulent until the 25th of December, when the wound closed, and the patient recovered his health. Morand remarks that there were very few instances known of recovery after the operation for empyema, and that, when he was in the habit of using the silver tube, he was astonished to find that it was always introduced to the extent of four or five inches without touching anything, and that the fluid should not be evacuated therefrom at once, that the lung might have time to recover itself gradually. He was not aware of the manner in which it was permanently compressed and fastened back to the spine. This case, nearly one hundred years old, shows that the chest was at that time punctured, that when it filled again it was opened, and the matter was allowed to run out daily. Morand was also aware that the lung was collapsed and compressed. He seemed to be acquainted with every leading fact, save that the cure was effected by the falling in of the chest.

Case 14.—Diemerbroek, in his "Historia de Empyemate," relates a successful case treated by operation, after an attack of pleuritis, indicates the symptoms common to such complaint, and the mode of cure, and among other directions gives the following: that, if the collection of matter should not be removed by the remedies employed in the course of two weeks, recourse should be had to the aid of surgery; that an incision should be made in the side, between the fifth and sixth ribs, large enough to insert a silver tube, which is to be retained in its place by proper bandages, and closed by a plug until it be thought right, from time to time, perhaps morning and evening, to let out the matter; the tube to be retained until matter has ceased to flow through it.

Case 15.—Dr. Wendelstadt, of Hersfield, in the year 1810, and in the twenty-third year of his age, suffered an attack of pleurisy which became chronic, and ended in effusion. After severe suffering for six months, he was able to attend to his professional duties. The ribs of the right side protruded, but the intercostal spaces did not; the whole side was motionless on respiration taking place. The circumference of the chest continued to increase, and fluctuation within became evident on succussion. In June, 1819, having undergone another attack of pleurisy, he submitted to the operation for empyema, as offering some hope of preserving life. When a pint of fluid had been discharged the wound was closed, and he experienced great relief. The next day a third of a quart was taken away twice in the day, and on the third day as much more, but he thought this was too much, as he became greatly exhausted and feared that suffocation was impending; he was recovered by stimulants. On the fourth day the fluid was thicker in consistence, and fetid, and continued more or less so for a fortnight. It was then allowed to flow as it would at each dressing. Astringent injections were used for six weeks, but were then abandoned, and he gradually recovered his strength. Thirteen years afterwards, in 1830, the wound was still open, discharging twice a day, sometimes only half a drachm, sometimes three or four ounces daily. The right side had altogether shrunk, and did not move on inspiration; he had no cough, and was otherwise in good health; a piece of a rib became loose, and was removed at the end of thirteen years, when the report of the case terminated, the patient being in health.—*Journal der Praktischen Heilkunde*, 1831.

It may be remarked on this case that the admission of air did no harm; that the lung remained compressed; that the whole side thickened and flattened, as a consequence, so as to obliterate the cavity; but the cure would not have been even then effected, if the piece of carious rib had not been discovered and removed. Death, it may be presumed, would have followed its lying long in the cavity, and keeping up a constant irritation and discharge.

Case 16.—Mr. Winter, secretary to Admiral Sir C. Napier, on the 5th July, 1833, when he took the fleet of Don Miguel, was wounded by two musket-balls, one in the arm, and one which entered between the inferior edge of the left scapula and the thorax, which it penetrated, fracturing a rib in its progress, and lodged. He fell, and spat up some blood, and, as symptoms of inflammation supervened in twenty-four hours, he was bled largely, and this was repeated frequently until these symptoms were subdued. He was after a time sent to the Marine Hospital, Lisbon, in a miserable plight, suffering from hectic fever, with a flushed face, hot skin, glassy eye, great prostration of strength, cough, restlessness, dyspnœa, and copious night-sweats. The wound discharged a watery, sanious, fetid matter, in quantity, and he was unable to do anything but eat, and for food he had a great craving. From this state, under good treatment, he gradually recovered his strength, and on the 18th June, 1834, a piece of the rib was removed. The wound remained open with a great purulent discharge, which kept him in a reduced state; and a little more than one year after the injury, he reached London, and was taken into the Westminster Hospital. I found the left side of the chest flattened and contracted, and the lung doing very little in the respiratory way, as far as could be discovered by auscultation: the wound discharging a quantity of matter, which he could readily evacuate by making the opening the dependent point, but not otherwise. On enlarging the external wound, so as to make the opening into the chest direct, I found I could pass a round-pointed gum-elastic bougie into it for four inches, and, on bending it down, for six inches more, it having to pass over a thickened pleura, and false membrane of an almost cartilaginous nature, for the extent of an inch, before it could be felt to be in a large cavity. As it did not appear to me that he had any chance of recovery unless another opening was made lower than the sixth rib, in a more dependent position, I proposed the operation to him, but he would not submit; and after a time he left the hospital, and went into the country, where I was informed he died, hectic.

Case 17.—A non-commissioned officer, of the 2nd division of cavalry, was wounded at the battle of Albuhera, on the 16th July, 1811, in several places, by the lances of the Polish cavalry, one of which penetrated the left side of the chest behind, immediately below and before the inferior angle of the scapula. He spat and coughed up blood, and lost so much from the wound, that he became insensible, the bleeding having been stopped by some of his shirt bound upon it tightly by means of his woollen sash. Brought to me at the village of Valverde, my attention was drawn to him some days afterwards, in consequence of his having got worse under his treatment, the difficulty of breathing having increased, so that he was obliged to be raised nearly to an upright position, as well as from his inability to rest on the part wounded, from the dark blue inflammatory swelling which had taken place, the wound having closed. I did not hesitate to make an incision into it, when a quantity of bloody purulent matter and clots of blood flowed from it. The incision was then enlarged, so as to allow of a direct opening into the cavity of the chest, which was ordered to be kept open. The relief was immediate, and the symptoms were soon restored to the state of those in other persons who have an open wound in the chest. He was removed to Elvas, doing well, some three weeks afterwards.

This case offered the nearest approach I have seen to the ecchymosed œdema described by Valentin as accompanying effusions of blood into the cavity of the chest, and, with the following, are instances of operations, not by election, but by necessity.

Case 18.—A French soldier had been wounded at Almarez, by a musket-ball, which went through the right side of the chest, in a line nearly horizontal from a little below and to the outside of the nipple, backwards. The first symptoms having subsided, although much neglected, he gradually descended the Tagus to Lisbon, where, after some months of continual discharge, the wounds closed, first the back, and then the front. He did not recover his strength, always looking sickly, and suffering from pain, difficulty of beathing, and other inconveniences which did not prevent his walking about in the confinement to which he was doomed as a prisoner of war. My attention was drawn to him by Dr. Dos Santos, a Portuguese physician, who had been educated in Edinburgh, and who was in charge of the hospital, at one of my visits of inspection, in June, 1813, in consequence of an obvious fulness of the intercostal spaces, of the great difficulty of breathing, and of a puffy inflammatory swelling which was forming around and at the seat of the wound in front. Into this I made an incision, and, as soon as it was deep enough, it opened into the cavity of the chest, the walls of which, on introducing the finger through the opening, appeared to be very much thicker than usual. A large quantity of pus was discharged, and the man was relieved, but this amelioration was not of long continuance, and he gradually sunk and died. On opening the body, the inside of the wall of the chest was found to be half an inch in thickness in consequence of a firm deposition on the pleura of a yellowish ash colour, honeycombed or ulcerated, as it were, in places, and particularly where the opening had been made. The lung was shrunk up from the anterior and lower part of the chest, but adhered to the wounded part behind, and was covered by a layer of false membrane of considerable thickness. The wound through the lung could not be distinctly traced, from its being throughout diseased.

Case 19.—At Santander, in October of the same year, 1813, I received some eight hundred wounded in the affairs of Le Saca, Vera, &c. One of the light division had been shot through the left side of the chest, in a nearly similar manner; the posterior wound had closed, but a sufficiently large quantity of matter was discharged through a small anterior one to show that there must be some depôt from which it proceeded. I, therefore, directed the wound to be laid open, and, as soon as I saw that its course was into the chest, I enlarged the opening into that cavity, and gave free vent to a quantity of matter, thus affording great relief. Some small pieces of rib were discharged, and a bit of something like the cloth of his coat also came away. He could lie on either side, and hopes were entertained of his recovery until after I left Santander in December, to join the army in France, when he suffered a relapse of inflammation, and died. No dissection, I learned to my regret, was made.

M. Faure, in his Inaugural Thesis, published at Paris, in 1814, gives the case of a man in whom pleurisy terminated in the formation of an external abscess, as large as the closed hand, on

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the right side, beneath the pectoral muscles. On being opened, it discharged a pint of purulent matter, and was found to communicate with the cavity of the chest. Death followed soon after. The cavity of the pleura of the right side contained eight ounces of pus; the lung was compressed to the size of the fist; the pleura lining the wall and covering the lung were both coated by false membranes.

M. Aubert, in another case of a similar kind, published in the same thesis, opened the chest on the 17th of July, and the patient, after many accidents, recovered his health in the May following.

Case 20.—A soldier of the German Legion had been wounded at Waterloo, by a lance, between the sixth and seventh ribs of the left side. He spat up much blood for several days, and was carried to Antwerp, where he remained for several months, suffering from great difficulty of breathing and other distress in his chest, which recurred from time to time, although his wound had healed. He was admitted into the York Hospital, Chelsea, in the spring of 1816, from the barracks in the Savoy, where he was awaiting the award of his pension, in consequence of an attack of inflammation, of which he died. On examining the body, the lung of the right side was found to be greatly inflamed and full of purulent fluid, which caused his death. The left or wounded side was found to contain a small quantity of pus, the cavity being very much diminished, by the great thickening of the pleura, and the falling in of the ribs, which were also thicker and greatly flattened, and consequently changed in their form; the lung, shrunk or collapsed, was covered by a thick adventitious membrane, and bound down against the spine, leaving a long small space, which once had been doubtless full of matter. The mediastinum and heart appeared to lean towards the right side, aiding in this manner in the obliteration of the cavity, which must take place if a permanent cure is effected in empyema. I have seen two cases in which this obliteration appeared to be complete: one in a soldier, who had been wounded in the chest,—one in a gentleman, the subject of empyema, in private life. In both the spine was also distorted, the side wasted, the nipple lower than the other. The breathing of the opposite side more marked and developed; it might have been called puerile. I have never had an opportunity of examining a case of the kind after death, in which a cure had been long effected. In both these it took nearly three years to accomplish.

Case 21, by Dr. Frederick Bird.—William Griffin, aged eighteen, admitted into the Westminster Hospital Sept. 14, under Mr. Lynn.

Ten days before his admission into the hospital, whilst labouring under great mental excitement, he discharged a pistol against the left side of his chest. A wound corresponding to the middle of the eighth rib was produced, from which a very small quantity of blood escaped, but was immediately followed by vomiting and fainting. The medical practitioner who was called to him at the time passed a probe to the extent of four inches into the wound.

The wound had nearly cicatrized, but he became the subject of acute pain, diffused over the whole of the left side of the chest, accompanied by fever and frequent cough, dyspnœa, and inability of lying on the right side. After the lapse of a week he was transferred to the medical wards, under Dr. Roe, at which time he had begun to expectorate purulent matter of an extremely fetid character, occasionally mixed with blood. His respiration was hurried, the right side of the chest expanding much more freely than the left; the lower three-fourths of the affected side were dull on percussion; tubular respiration could be detected at the upper part, but at the lower part no air appeared to enter; well-marked modification of voice existed over the whole of that side of the chest. By measurement no difference in the relative size of the chest was observed, but the intercostal spaces of the left side remained motionless during expiration. The heart could be felt feebly pulsating at the epigastrium.

Oct. 15. Had been slowly improving until this evening, when he suffered from a violent paroxysm of coughing, during which great dyspnœa suddenly came on. He sat propped up in bed, his respiration was almost ineffectual, his face livid and covered by a cold clammy sweat, pulse scarcely perceptible at the wrist, and his extremities were becoming cold. On examining the chest, the left side, before quite dull, now afforded tympanitic resonance on percussion, which, together with the total loss of respiration, and the presence of metallic tingling, proved the existence of pneumo-thorax. I introduced a trocar between the sixth and seventh ribs, which was followed by an escape of gas, with about five drachms of pus, both of a very fetid character; the canula becoming obstructed, a larger one was then passed through the opening, but not more than half an ounce of pus escaped; it was then withdrawn, and found to be blocked up by what appeared to be disintegrated lung. As he was now greatly relieved, no further attempts at evacuating the fluid were made.

16, two A.M. Two hours after the operation. Respiration has become much easier, heat of surface is quickly returning, and his pulse is becoming more full —Four A.M. Has had a paroxysm of coughing, during which six ounces of fetid pus escaped by the opening, after which he felt relieved.—Ten A.M. A second gush of sanious fluid, to the amount of five ounces, containing small masses of sloughing membrane, took place. Cavernous respiration can now be heard at the upper half of the lung, mixed with gurgling and metallic tingling. Expectoration is muco-purulent and offensive.

17. Since yesterday seventeen ounces of pus have passed through the wound. He is altogether improved.

18. Diarrhœa has supervened, under which his powers are rapidly diminishing.—Vespere. Has vomited, during which six ounces of pus were forcibly ejected by the wound.

19. The diarrhœa has been arrested by the use of opiate enemata, but he appears more prostrate. The discharge from the wound continues at intervals.

21. Has somewhat improved; not more than three ounces of matter have escaped since the last report. He suffers from accessions of fever towards evening, and perspires very profusely during the night; the cough is less frequent, and he expectorates freely, the sputa being of the same purulent, fetid character. Scarcely any discharge now takes place from the side.

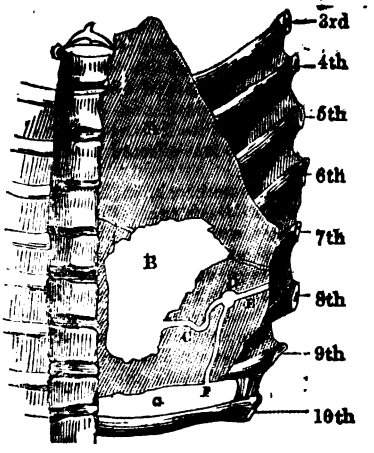
Nov. 5. Has remained in nearly the same condition until yesterday, when he ceased to expectorate, and has since become much worse; his skin is now intensely hot, face flushed, tongue brown and coated, pulse jerking, but feeble and frequent; the opening in the chest has quite healed.

A second opening was now made about an inch external to the former one, and a canula introduced, but not more than one ounce of pus escaped, the instrument becoming blocked up by portions of sloughing tissue; during a paroxysm of coughing, which occurred a few hours afterwards, several ounces of fetid, sanguineous pus were forced through the wound.

8. Has been much relieved since the last operation, and he has now again begun to expectorate freely, as much as a pint and a half of extremely fetid, purulent matter, mixed with opaque masses more or less moulded by the bronchial tubes through which they have passed, having been coughed up during the night. All the physical signs of a large cavity in the lung can be now distinctly heard. Not more than five ounces of pus have escaped through the opening.

16. Since the last report he has been slowly sinking—is emaciated to an extreme degree. The wound originally produced by the pistol-ball, as well as those made by the trocar, have become fistulous, so that, during respiration, the air passes into the chest, and is expelled with as much freedom as that passing by the trocar. Expectoration has continued very copious, about a pint and a half having been passed in each twelve hours; large sloughs have formed upon the nates and hips, his intellect wanders, and he has frequent syncope. Died on the 5th of December.

Sectio Cadaveris.—The pleural cavity of the left side contained about ten ounces of purulent matter mixed with blood, and having floating in it numerous masses of white curd-like matter, at the bottom of which, in the angle formed by the diaphragm with the spine, was found a pistol-ball, partly covered by albuminous matter, and discoloured. Fluid injected into the left bronchus was found to issue freely from an opening at the most depending part of the lung, communicating with a small cavity, the interior of which was lined by the same thick membrane met with in cases of chronic phthisical disease; from the upper part of this cavity two other sinuses were found, the one passing externally, and terminating by an adhesion of the lung with the ribs, at the point where the ball had entered; the other was longer and more tortuous, passing deeply into the substance of the lung, and ending in a large abscess capable of containing five or six ounces of pus. The lung was, at its lower part, firmly attached to the ribs by intervening false membrane, whilst the upper part was free, and had become compressed towards the spinal column. The substance of that part of the lung, not involved in the abscess, was infiltrated with pus, and the greater number of the bronchial tubes were filled up by masses of curdy matter, similar to those found floating in the effused fluid. The natural division of the lung into lobes was quite destroyed by the pleuritic adhesions of one to the other, whilst the pleura lining the parietes was covered by rugged layers of false membrane of irregular thickness, and readily detached. No trace of tubercular deposit could be found, and the lung of the opposite side was quite healthy.



A. Section of the lung, made vertically. B. Section of the abscess communicating by the sinus (C.) with the circumscribed gravity (D.) in which the bullet had been lodged after its entrance by the sinus (E).

F. The sinus by which the ball had passed into the pleural cavity (G).

Opposite the 7th and 8th ribs the lung is quite adherent.

CLINICAL OBSERVATIONS ON SOME OF THE MORE FREQUENT DISEASES OF CHILDREN.

By W. HUGHES WILLSHIRE, M.D. (Edin.), M.R.S.; Physician to the Royal Infirmary for Children, &c.

(Continued from p. 252.)

Gentlemen,—To-day I shall commence some observations on *fever*, as it is observed in children up to about fourteen years of age.

It is not my intention to discuss the much-disputed question as to whether the general disturbance of the system we denominate *fever*,

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febrile action or *erethism* is or is not always dependent upon, or essentially connected with, local lesions or anatomical changes going on in the circulation and nutrition of particular portions of the body. This you will have heard spoken of before in the lectures on general pathology and medicine. I shall here take for granted that it is necessary for practical purposes to draw a broad line of distinction between what I shall call *symptomatic fever* on the one hand, and *idiopathic fever* on the other. The former undoubtedly is due to the previous existence of some such local change as I have spoken of, by the persistency of which it is kept up, and without which it never would have taken place. The latter arises—in one sense, at least—as it were, *per se*; it is to us, so far as our powers of analysis can go, the primary disease, the symbol of the original morbid characters developed in the frame.

In the *symptomatic* variety we can affirm that such and such a local affection has produced febrile erethism; in the *idiopathic* we can say no such thing. A child has scrofulous disease of the articulating cartilages of the knee-joint, or inflammation of the lining membrane of the lower bowel, and in the course of these disorders fever is set up either of a hectic or remittent typhoid kind. If we can remove either of these causes the febrile disturbance will cease. Another child in whom no disorder of any individual portion of the body, so far as we are aware, is going on, is all at once attacked with fever, and we shall be puzzled to remove that fever by attempting to treat any local modification which we may fancy has produced it. Local diseases will be brought in the train of that fever, and which we shall be called upon to treat; but these will be effects of the same general and hidden powers which gave rise to the primary or idiopathic febrile excitement.

Whilst drawing this distinction, then, between symptomatic and simple idiopathic fever, as also separating these from the eruptive forms, I shall, nevertheless, beg your attention to some general principles which overrule the constitutional disturbance we call febrile action in the young child, from whatever this disturbance may arise, and which is marked by some peculiarities special to early life.

By this general term fever, or the words "feverish symptoms," we usually understand a condition of the body in which at first the circulation is accelerated, the animal heat increased, and the nervous system irritated; with these, also, we usually observe diminution of appetite, increase of thirst, and more or less intellectual inaptitude, or aberration from a usual condition. Of course it is very difficult indeed to give in an aphoristic or axiomatic way a good definition of so general and constitutional disorder, though certainly, so far as adults go, the comprehensive definition of Cullen is the best of any—"Post horrorem pulsus frequens, calor major, plures functiones læsæ, viribus præsertim artuum imminutis."

Fever is, however, so complete a *whole*, made up of so peculiar a combination and succession of symptoms, that any notion you can well form of the *general* must be derived from a careful consideration of the *particular*; and, therefore, any attempted universal definition, such as I have given you, can only partly develop the idea of such a disorder. I may quote to you the words of Feuchtersleben in his Medical Psychology, who says, "The pupil must bring with him to the sickbed the general idea of fever, in order to understand fever as it actually occurs; and, *vice versâ*, it is only the careful abstract consideration of a fever as it actually occurs which furnishes the general idea of fever."

I must now recal to your recollection what you have learned in the lectures on general pathology, viz., that feverish symptoms once having constitutionally manifested themselves, whether in adults or children, do one or other of these three things:—First, after their establishment, they subside completely for a regular interval, say of twenty-four, forty-eight, or seventy-two hours, leaving the system in a state of repose, when again they break out; or, secondly, instead of the whole train of febrile phenomena, keeping in abeyance only the more intense ones, do so, and then only for a shorter period of time, say twelve or twenty-four hours, when again they make their appearance, the body, in the interval of comparative repose, often suffering materially; or, thirdly, instead of there happening any period of rest or cessation from febrile erethism, the body, once invaded, enjoys no abatement, on the symptoms proceed and do not stop for any definite or very appreciable space of time. Now, if the symptoms exhibit the first characters, the fever is said to be of the *intermittent*, if the second of the *remittent*, if the third of the *continued* type.

These great types or forms become, both in the adult and children, often variously modified during their progress, and, though idiopathic in many of their states at first, may pass on to a very complicated condition afterwards—a condition associated with many important local inflammations. Or, on the other hand, though they may be symptomatic at the onset, yet the fever may become of so intense a character, and constitute so severe a constitutional disturbance, as to put the local affection completely in the background. Not only this, but these types may run one into the other. Feverish symptoms of a regular form may appear, gradually become irregular, and pass into another form. An intermitting series may become remitting, a remitting continuous, or a remittent fever intermittent, especially in the child. Thus one fever may become another: there is a mutability of fever.

The only other general principle I shall recal to your mind is, that when the feverish symptoms run their course with very marked depression of the general vital powers, or of the heart and nervous system, and with the state of the secretions, as might be expected, greatly deviating from the natural condition, the symptoms are then said to be *typhoid* in character; but when this occurs the symptoms are generally *continued*, or become so very soon. I here, of course, avoid all discussion as to the specific differences between typhus fever and continued fever of a typhoid kind—a subject which you perhaps know has been much discussed in modern times. The bearing in mind the general principles I have recalled to you will suffice us, and I shall now pass to the peculiarities of febrile action in the *young* child.

The first point of interest I may mention is, that idiopathic fever is observed in one form only in children at the breast, or before they are eighteen or twenty months old; in fact it is not until after between three and four years of age that it becomes of marked frequency. Before the completion of the second year we constantly observe febrile action set up, but such constitutional disturbance is then symptomatic: it is the effect of a local disorder, of a topical affection. With acute bronchi-pneumonia, or with chronic entero colitis, we observe it in perfection; or we may perceive its disturbing influence in the travail of difficult dentition. But, as I have said, there is one form in which it certainly occurs as truly idiopathic before the child has completed twenty-four months: it occurs in the form of an intermittent fever. I have seen it as early as sixteen months, at least I considered the child to be labouring under it, treated it as such, and the infant got well.

Bouchut has seen it at eighteen months, and his able article on the subject first drew my attention to the early occurrence of the affection. This writer remarks that intermittent fever is seen in children of all ages, and is developed under absolutely similar conditions as those which tend to its evolution in adults. In Paris it is met with in children at the breast, brought up in unwholesome, damp, and badly-lighted habitations, and amongst those whose alimentation is defective. It is thus a malady of the lower orders. It is also seen amongst infants born in marshy places, and amongst those sent to be nursed in such localities. It is very common in Orléanais and Berri, provinces which furnish a great proportion of the nurses of Paris.

Whether fever is observed at a very early age as symptomatic or idiopathic, it presents peculiarities differing somewhat from the train of morbid phenomena we observe in older children and in adults. A sort of premonitory sign of the outbreak of the disorder in the latter is horripilation, rigor, or chill, soon observed after some amount of lassitude, debility, or general *mal-aise*. In the young child the former is wanting: there occur a certain amount of *mal-aise*, of tetchiness, of disinclination to be touched or moved from the position it takes, and then breaks out increased heat of skin. Even in the intermittent form no shivering occurs; there is no trembling as if the child experienced a great degree of cold. The earliest age at which Bouchut observed it was two years and a half. This augmented temperature of the cutaneous surface I particularly impress upon you, as it is one of the most important symptoms of the fever of infantile life. By simply taking hold of the child's arm, when any other means of inquiry would be difficult, you can satisfy your mind at once, should the paroxysm be on, or the mother will tell you of her own accord, perhaps, that at night the child "burns like a coal" or "gets so hot" in the afternoon. In some forms of fever the heat is great in the extreme; the child seems to burn when you place your ear against the chest to listen for the crepitant rattle of pneumonia. So extreme does the heat often feel, that the same terms may be applied to this sign of the symptomatic fever of pneumonia in the child as was applied long ago, by Galen, to that of the autumnal remittent fever of adults—"Maximum indicium est mordacitas et acrimonia caloris." What is interesting is, that Sir J. Pringle and Sir G. Blane, as well as Galen, all speak of a "mordant heat" in relation to fever of a *remittent* form; and you will presently hear from me that this is the usual type of fever in a child. It was remarked by the more ancient writer that this peculiarity of heat is not felt the moment the hand is applied, but is perceived on continuing the hand upon the patient for a certain time. It has been so stated in later times. So far as the child is concerned, I have been able always to feel it at once, but undoubtedly the longer you keep your face against the chest the more hot will it feel. Very often, whilst the trunk is so warm, the feet and legs especially feel cold. M. Roger, a year or two ago, made many experiments relative to the heat of the body in the diseases of children. He found that the highest and most continuous temperature occurred in the fever of typhus, of meningitis, and pneumonia, viz., 108° F. In disease of the respiratory organs Roger found that the temperature rose in proportion as the parenchyma of the lungs became involved. He gives as a general rule that, whilst in adults the temperature of the body in disease fluctuates through a range of only 7° C., in children it varies as much as 19°; and that, if the temperature is above 100° F., fever, either symptomatic or idiopathic, is present, whatever be the rates of the respiration and pulsation.

Accompanying the heat of skin is seen a slight general increase of colour on the face; sometimes one cheek is more flushed than the other; or again, during the paroxysm, both may become very red indeed. The mouth is hot; the tongue often, but not always, coated; and frequent desire to suck is evinced. With these is felt acceleration of the pulse.

This last sign is, however, in infants, comparatively useless for you to judge by alone; and, although it is of value going along with the increased heat and nervous irritability, you need seldom refer to it when you have the others existing, since it is always very difficult to count the pulse satisfactorily, and a temporary increase will be caused by the mere examination of the little patient, and the flurry it is put into. Another thing I may tell you is, that in almost all of Roger's experiments it was found that there was no proportion between the elevation of the tem-

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perature and the excitement of the pulse except in pneumonia, where there was always a correspondence between the temperature, pulse, and respiration; and in typhus fever a greatly elevated temperature was associated with a moderate range of pulse; and the author to whom I refer asserts that this fever may be diagnosticated to a certainty in older children when the temperature is 84° F., or upwards, and the pulse under 100. It would be no easy matter, again, to say what is the usual rate of pulse in the young child when in health, for the records given by writers vary so much.

In Bouchut's chapter on the "Circulation" you will find a great deal of interesting matter upon the subject; and I may give you the following résumé deduced from the many authorities there quoted. In children at the breast, the pulse is subject to variation according to individual constitution. The maximum and minimum rates may be stated at 160 and 150 pulsations in the minute, but 118 to 120 is the rate more frequently observed. During sleep the pulsations diminish by fifteen to twenty; by strong emotions, &c., they may increase fifteen, twenty, or even forty. Towards the end of the first year the pulse is rather more frequent in girls than in boys; as weaning time approaches, the pulse gradually becomes slower. Now, you can judge how little aid we can derive from the pulse in infants, unless the rate of pulsation becomes very high and continuously so.

The next point of interest is this: whilst in adults symptomatic fever, except hectic, and Idiopathic, save the true intermittent and remittent of malarious poisons, have always a tendency to become *continued* in type, in young children they have not—in them they are of the remittent character. Whether symptomatic or idiopathic, the younger the child the more is the tendency of the fever to a remittent form, and as age increases that to a continuous character is observed. This must be carefully kept in mind by you, as serious consequences may result if such is not done. For example: suppose you were called to a case of pneumonia, and in an afternoon visit you found the skin burning hot, the face flushed, the child restless, the thirst great, the respiration increased, the *mal-aise* considerable, &c.; on examining the lungs, that you found the signs of inflammation of them in perfection, and that you were led to give an unfavourable prognosis. But suppose again that, on your visit the next morning, you found the child failing to exhibit this series of phenomena in such intensity; that you found the skin comparatively cool, the flush gone from the face, the pulse not so rapid, nor the respiration so frequent, &c. &c.; and that, therefore, you gave a more favourable opinion, as the constitutional disturbance appeared so much diminished, and you considered the local disorder must have become lessened in intensity too. If you were to call a few hours later in the day, perhaps, you would deeply rue your morning's prognosis; you would find the paroxysm of the fever present, or even in still greater intensity, and, on examining the lungs, still more involvement of them in disorder than before. Your first and third visit were in the periods of febrile exacerbation; your second one in that of the interval of comparative repose, and you forgot the essentially remitting character of the constitutional phenomena. All the time the local affection, and which finally proves fatal, was as bad as ever.

Again, no severe local inflammation of an acute character occurs in the adult without the symptomatic fever rising high very early in the disease; in fact it is the fever that often strikes the friends of the patient before they become aware of the mere topical disorder. But in children this is by no means the case: there occur examples of acute local inflammation, which are not at once acompanied, at any rate, by very appreciable febrile disturbance, but which supervenes afterwards. Hence the attendant is sometimes misled as to the real danger of the patient. These cases, too, are quite different, I may remark, from those forms of so-called "latent" inflammation in the adult, which are also often accompanied with but little fever. In other instances, quite the reverse of what I have told you happens, and may equally mislead. A very important local disorder arises, such as entero-colitis for example, and with it such intense remittent febrile disturbance that the attention is only directed to the fever, which is assumed to be the disorder, and the true one of which the fever is but a symbol is passed over. Hence has often arisen the mistake of supposing that a child has idiopathic fever, whilst it has a local inflammatory disorder, with symptomatic fever of a severe kind.

In the chronic affections of young children the accompanying fever has often remissions of very long intervals indeed, and the paroxysms are sometimes of so very subdued a character as to require close observation before the period of the exacerbation is detected.

Considerable symptomatic fever is often set up in the infant by very slight local affections, more particularly of the digestive apparatus, and, once established, will sometimes bring in its train complications so severe that the primary affection bears no comparison with them. We see high febrile erethism play much harm with a child who is cutting its canine teeth; a little acidity in the stomach will bring with it severe fever and stomatitis of a very bad form. The fever which often accompanies difficult dentition appears often to own no other cause than the gingival irritation affecting the impressible nervous system of the child, or, at least, it is impossible to associate it with any other local lesion, or an inflammation; in other cases it coincides with these latter more or less pronounced; and which are sympathetic disturbances due to the irritation of the gums. Fabre remarks, however, that, even when there exist these local alterations of the circulation or nutrition of individual parts, it is but slightly probable that they are its principal cause. The difficulty of the question previously struck Sydenham. This fever is very irregular in its course, often but slight and of no long duration; but in other cases it is greatly prolonged and drawn after it very serious disorders. All the functions of the body appear to languish, digestion especially is badly performed, and at last the little patient is plunged into a state that leads to a fatal result. M. Barrier says, that on an autopsy in such cases no lesion can be discovered which is capable of explaining the fatal termination. It is, therefore, a serious nervous affection. Sydenham must have taken a similar view of it, since he says, "I have been in great doubt a long while about the cure of these, neither could I be certainly persuaded, but of late, that any committed to my care were recovered so much by art as by chance; till at length, being often admonished of the happy success of a remedy that is not very famous, yea, indeed, very contemptible, upon the account of the common use of it, I had also prescribed it, which answered my desire better than any I know: it is three or four drops of spirit of hartshorn, according to the age, given in a spoonful or two of black cherry-water, or of any proper julap, four or six times once every fourth hour." —("Pechey's Translation.")

I told you that, as one of the prodromi of the febrile paroxysm in adults, the chill or rigor was usually observed, but that in young children such was always wanting. The same remark holds good in regard to the outbreak of perspiration, which we often see in the former, as reaction comes on when the fever exhibits paroxysmal exacerbation. In the young child this perspiration is not observed, or but very rarely, and then it is only partial. I have seen it, it is true, in the symptomatic fever of bronchi-pneumonia, in an unweaned infant who was taking frequent doses of the nitrate of potash; but they ceased on suspending the medicine, and, therefore, should be ascribed to it, and not regarded as a true febrile phenomenon. But even this kind of perspiration is very difficult to produce in a marked degree.

Lastly, you must remember that the period of the diurnal paroxysm of the fever in young children is more often in the afternoon, from four to six o'clock, than at any other time. It is not unfrequent, however, at night, and sometimes there occur two fits—one early in the afternoon, and another in the night. Sometimes, but far more rarely, a paroxysm is seen early in the morning.

ORIGINAL CONTRIBUTIONS.

A REPORT ON THE CAUSES, CHARACTER, AND TREATMENT OF SPASMODIC CHOLERA AS IT OCCURRED IN HER MAJESTY'S 86TH REGIMENT, AT KURRACHEE, IN JUNE, 1846.

By ALEXANDER THOM, Esq.,
Surgeon of the Regiment.

Communicated to the *Medical Times* from the Army Medical Board.

(Continued from p. 339.)

Having thus touched on what I must consider as the general causes of cholera, or such as may be supposed to engender a diathesis predisposing to an attack of it, I may proceed to specify the apparently direct and collateral causes which gave rise to it in the 86th Regiment, and to show their similarity to those which have been assigned in the preceding pages. It will be necessary, on the present occasion, to direct attention to the circumstances peculiar to certain classes, which in one case gave themselves an unexampled virulence and fatality, and in another complete immunity, and such as, happily, are in a considerable degree under our control. The general atmospheric causes which must naturally occur in a more or less degree cannot be prevented, but in all probability it very rarely happens that these are in such an intense degree as to produce cholera in a severe and prevalent shape without the usual concomitants, which appear to have lent a far more dangerous character to it than even the purely primary causes alone.

Scinde assumes a Choleric Diathesis.—The climate of Kurrachee has only been known for a few years, but in that time every European regiment that has been stationed here has been more than once decimated by cholera, often within a few days: the 40th, 41st, 22nd, 28th, 60th, 86th, British Europeans, &c., all have had their share of it.

Climate of Scinde.—Now, it is curious that rain hardly ever falls at this place, yet the air is for six or eight months very humid, and contains more aqueous vapour suspended in a cubic foot than that of the Mauritius, or even Sierra Leone, an island surrounded by a hot ocean, and subject to heavy rains. The evil of the climate, in my opinion, is because the atmosphere will not deposit its load of vapour in the form of rain, to cool the surface of the earth and lower the dew-point. In July the weather is often *threatening* rain, and a misty or drizzling state of the atmosphere exists, scarcely wetting the ground. In Scinde the two monsoons common to India are experienced, but they are liable to certain causes which change their direction and render its soil extraordinarily dry; and the country, from the shores of the Arabian Sea to the Punjaub, is an arid desert of dry clay, or alluvial soil, spread out by the Indus. The air during N.E. monsoon is dry and cold, like the rest of India; but the S.W. monsoon, or sea breeze, of the hot months, which discharges torrents of rain along the peninsula as far as Cutch, generally blows towards the coast of Scinde, between W.S.W. and N.W. By a glimpse at the map of Asia, it will be seen that these westerly winds of summer must come from the vast dry and heated surface of the sandy deserts of Arabia or Africa, and, by sweeping across the mouth of the Persian Gulf, imbibe a large quantity of aqueous vapour by the time they reach the coast of Scinde. This is the common course of the seasons. It happens, however, generally every three or four years, that the summer monsoon reaches the coast from a S.W. or S.S.W. direction, on which occasions a few heavy

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showers of rain fall about Kurrachee. Such was the case in the present summer, when heavy rain has been experienced, and cholera preceded it; last summer there was only one shower, and *no cholera* prevailed, except a few cases among the natives. I believe, however, that the hot wind from Arabia, in crossing the narrow sea to Scinde, receives a full charge of vapour; *for*, although rain is very rare in summer, yet hygrometrical observations indicate a large proportion of moisture being supported by it, and deposition is prevented by the fresh increments of temperature which it acquires on approaching the bare, arid, and heated plains of Scinde. This appears to be the intelligible cause of the humidity of the Scindian atmosphere for six months annually, while scarcely four inches of rain fall during the whole year. The sea-air, at the temperature of 85° or 86°, and charged with vapour to 83°, instead of encountering general, local, or temporary currents at or below 83°, which would immediately cause deposition of vapour, becomes mixed with the hot stratum of air on the low land at 90° or 100°; and the *mean* of the two, which increases towards the interior, secures the continuous suspension of the moisture till it is wafted across the Sutlej wastes of the Indus, and reaches the cold of the Himalah or other mountain ranges. The farther from the sea, the hotter and drier is the climate in Scinde, all the year round, particularly at Sukkur, in Upper Scinde, where the cholera never reached to on the late occasion.

State of the Season preceding Cholera.—In the present season (1848) the months of March were dry and hot, and on the 31st of March above Sukkur the thermometer in the soldiers' tents was at times as high as 100° or 102° in the middle of the day, while the dew-point was only 66° or 70°.

April.—In April, as we reached the mouth of the Indus, the temperature was still high; and about the end of April, while under canvas at Kurrachee, in a large tent with double flies, the thermometer stood at 96°, 100°, 104°, and in some tents at 110°; the dew-point varying with the wind—from the land at 64°, from the sea at 76°.

May.—In May the S.W. monsoon, or sea-wind, fairly set in, but blowing from N.W. to W.; only occasionally, for a few hours in the morning, being at S.W., but backing to N.W. by evening. The maximum heat, 91°, was not so great as in the previous months; but the mean heat of the twenty-four hours was much greater, and the nights were getting hot and oppressive, and, by the end of the month were about 84°. The dew-point, owing to the wind being steady from the sea, was subject to little variation, and was slowly, but steadily, rising to about 78° at 3 P.M. in the end of the month. The winds, however, were very fresh, both day and night, and ventilation seemed to go on in the most secluded nooks.

I give the meteorological tables for June and July in full, as marked B and C.

Absence of Local Causes at Kurrachee.—Here, then, we have before us the state of the climate preceding and during the outbreak of cholera; and, as a proof of the purely atmospheric origin, I may mention that the prevailing wind had been westerly, or from the sea, during the two months which preceded its appearance, and leads us at once to banish all idea of its being charged with any specific miasma or poison. This fact is also directly opposed to the alleged existence of minute and invisible animalcules floating in the air, unless they are of marine origin—a probability not even indulged in by the most strenuous supporters of this source of cholera. In vain do we also seek for the causes of malaria in the locality around Kurrachee. The country is dry and bare; almost wholly destitute of vegetation, marshes, or jungle—unless a few stunted euphorbiæ, thinly scattered over the desert, can receive such a term—and is about sixty miles from the Indus and its supposed noxious influence during the inundation. The very filth which exists about the streets of the cantonment, and a dirty bazaar, a few hundred yards to windward of the barracks, unless by mechanically arresting the wind, appeared to have had no influence; for, although some attributed cholera to this, yet the disease had disappeared before active steps could be taken to remove these nuisances. Another source of the disease is said to have been in the effluvium which was generated from the masses of half-buried or half-burnt bodies of the persons who died in the native town of Kurrachee, which was wafted from the place of sepulture towards the barracks, and was most offensive to the olfactory nerves; for it may be here observed, that Kurrachee is about a mile to windward of the cantonment for the troops, consequently the latter has all the benefit of such a nest of filth between it and the sea. In truth, the decomposition of the bodies of those who had been the victims of cholera was sagaciously said to be its cause. When this effluvium was most intolerable at the camp, the violence of the cholera had ceased, and it finally disappeared among the troops while this alleged agency continued! Another, and equally absurd, cause passed current in camp, and has been re-echoed by the Bombay papers, viz., that the disease broke out after "a black cloud" and dust-storm, which took place at five o'clock P.M. on the 14th. While in reality twenty cases had been admitted, and arrangements had actually been made to move our regiment (the first assailed), before this not-uncommon phenomenon terrified the crowd. As it was next morning before the awful condition of *our corps* was generally known in camp, a few futile imaginations attributed the disease to what they had seen, and others accepted this because it was full of mystery.

Not Contagious.—It is equally apparent that there was nothing contagious in the nature of the disease; for instead of a few cases appearing first, and then the disease gradually spreading, it suddenly burst forth in a few hours in every European regiment, whether in camp or barracks, in every tent, and every house; and it was at its acme in forty-hours after, when, instead of spreading further, it gradually and steadily declined. Now, it appears that for some days, or even weeks, a few cases had appeared in the native town of Kurrachee; but there also, at the same period, the malady became *suddenly* general over the whole place. From the nearest part of the cantonment to Kurrachee is about a mile, and where there are two native regiments' lines; farther off are the officers' lines, and the Suddar Bazaar; next are the barracks, in which her Majesty's 60th are quartered; and to leeward of all, half a mile farther off, is the low plain in which her Majesty's 86th Regiment and the Bombay Fusiliers were encamped.

Its Progress opposed to Contagion.—Now, although the cholera first showed itself among the natives in Kurrachee, betwixt whom and the persons residing in camp there was daily and hourly communication, yet, for at least a fortnight, its ravages were confined to the former; and in its visitation to the cantonments it did not break out in the Seapoys' lines nearest to the town, but, if it came from windward as a specific poison, it passed over *all*, and burst forth with the unparalleled fury which has already been stated, in the 86th Regiment, at the most leeward and *remote point!* It then turned back in the teeth of the wind, and broke out in the barracks as suddenly as in camp; and a few days later it *recrossed* the officers' lines and appeared on the windward side of the cantonments among the native troops nearest to the point where it first began. These facts are alone sufficient to show that contagion had nothing to do with the spread of the disease. The officers and families were all equally exposed by their duties to have caught the disease, at least in a proportion something approaching to that of the regiment in barracks; but they had almost a complete exemption from its deadly influences, while it was raging with terrible effects on every side, even in their own compounds. Medical officers and attendants did not suffer more from the disease than others, although fatigue caused a greater numerical proportion to fall sick with diarrhœa.

Atmospheric Origin.—If, then, the prevailing sea-wind is unfavourable to the hypothesis that assumes insect life to be a cause of the disease; that there is an absence of the sources which are supposed to give rise to what is called malaria; and the facts which were observed in connection with the outbreak and spread of the disease are equally opposed to an infectious or contagious character or origin, we are irresistibly led to the conclusion, that the disease depended on atmospheric agencies. Although in the foregoing pages we have glanced in general terms at the manner in which the aërial causes operate, it may be useful to carry the inquiry a little further, and apply the same principles to the actual state of the climate at Kurrachee before, and during, the recent pestilence.

State of the Weather during Cholera in June.—As shown by the meteorological table, the climate of Kurrachee, during the few weeks preceding the appearance of cholera among the troops, was characterized by several peculiarities different from those which generally belong to all hot countries and seasons, perhaps merely so by their presence being in an excessive degree. First, the temperature was unusually high, being 90° to 92° in the daytime, and 86° at night, in good houses; and in the tents of our soldiers it rose to 96°, 98°, and 104°, as indicated by a thermometer suspended on a central pole five feet from the ground, and in the thorough draught between the doors. Secondly, the quantity of moisture in the atmosphere was greater than I ever saw it before in any part of the world, or at any season, the dew-point being at 83°, and the thermometer in the shade at 90°, the lowest range: even this gives 12·19 grains of vapour in each cubic foot of air. The mean heat in the twenty-four hours was such as to suspend an unusually large proportion of vapour in the air, always *near*, but rarely or ever reaching, the point of deposition. Even at the equator, with the sun over head, I never saw the point of deposition above 78°. The third and, perhaps, most important circumstance worthy of notice in connection with the other two, was the light, weak, unsteady winds or calms, which prevailed in the early part of June. Now, this is exactly the reverse of what ordinarily happens. In the last two years, the months of June and July were remarkable for the strong, steady, and cool winds, and overcast sky, which have given so favourable a character to the climate of Kurrachee during the hot months. It also appears that the quantity of rain which fell during the prevalence of cholera was much beyond anything that had occurred for a long time before; at least it surprised the European officers who have been here for three or four years. The state of the barometer I cannot give, but it must have been low.

Effects of the Weather on the System.—The effect of all this on the bodily feelings of every one, even the older residents in India, may more easily be conceived than described. There was a sense of languor and oppression, a stifling feeling about the respiration, and inability to undergo the slightest fatigue without extreme exhaustion. It was impossible to sleep at night, yet during the day the tendency to be overcome by a torpid sort of sleep was universally complained of; the body was bathed in perspiration, and the skin was corrugated and thickened as if it had been immersed for a long time in water. The lightest clothing could hardly be borne, or anything that arrested the free communication between the skin and the air. Hence every one was forced to seek the open air out of doors, or some place where the weak breezes were turned into a sharp draught; and it was a luxury of no common kind to have a punkah. In fact, for ten days before the predictions were unhappily fulfilled, it was a common remark among "old hands," that it was "regular cholera weather." At this moment (14th Oct.), the thermometer is as high as it was during the cholera, being 90° to 92° in houses, and 100° in tents, in the middle of the day. Yet we feel

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fresh, elastic, and free from that horrible, undefinable sense of oppression that prevailed in June. Evidently it is not simple temperature, and "lichen tropicus" has disappeared. But we have a palpable cause of this agreeable change: the dew-point is at 72°, instead of 83°; and the evaporation is now, even in a *calm*, more rapid than it was in a fresh breeze in June.

Causes Common to all Classes.—The morbid tendency in the system which preceded the pestilence was equally remarkable among the officers and families, as among the men. Every one more or less complained of loss of appetite, nausea, and tendency to diarrhœa. The gastric irritation was very troublesome, and created much thirst, at a moment when the stomach was unwilling to retain fluid. The lichen tropicus prevailed to an intolerable degree, and I doubt if a single individual escaped it, not excepting even the old acclimatized Indians, who considered themselves secure against it. Of the 410 cases of cholera which were brought under my observation, I do not recollect one in which the whole body was not covered with this cutaneous disease. A great proportion of the officers were ill with dyspepsia, diarrhœa, &c.

Signs of a Choleric Diathesis.—It was even found that mild symptoms, closely allied to those of spasmodic cholera, existed among the classes who were not sufficiently ill to be put on the sick list, and constitute what I consider to be the choleric diathesis, which precedes or ushers in an attack. With impaired appetite there was disinclination for animal food, a craving for drink, burning sensation at the pit of the stomach after eating, and the most trifling physical exertion was succeeded by unaccountable prostration of strength, restlessness, and anxiety. Persons who were delicate, or only returned under the head of "dyspepsia," were often suddenly attacked with "rice-water" dejections by stool, without any other sign of cholera; others had vomiting of the same, without purging; but even two or three scanty motions of this kind left the person shrunk, pallid, and depressed in strength. Those who were walking about at duty complained of fulness; tension and stiffness of the hands and feet, accompanied by an unpleasant tingling sensation in the palms of the hands and soles of the feet, often pervading the whole extremities, and producing twitching and spasmodic startings of the limbs when in bed. These last were very generally felt. At the same time the body was constantly bathed in perspiration, and the very atmosphere had a muggy, close feeling, as if it was a vapour-bath. During the prevalence of the disease, I had no tendency to diarrhœa or dysentery, although I have formerly suffered from the latter in a severe degree; yet I felt a constant tendency to nausea, loathing of animal food, and seldom could eat anything but dry biscuit, toast, or sago, although undergoing fatigue of no common kind, and at such a season. One night I was attacked with spasms of the calves of the legs, without any other symptom of cholera, except nausea. Two of my three assistants were taken ill, in twenty-four hours after the disease broke out, with diarrhœa and prostration of strength. The other continued at work, but suffered from diarrhœa.

I refer to this morbidly congestive condition of the system as existing among officers and their families, who are considered to have had a marked exemption from cholera; for it shows that they were equally subject to the atmospheric agencies as the men, and, had they been exposed to the same collateral causes as the latter, they would no doubt have suffered in an equal ratio, instead of that shown in Table D.

It is this peculiar state of the system which induces me to infer that all were subject to a common uncontrollable cause, which was modified by circumstances under our influence: in one class, running into a malignant form; in another, so mild as scarcely to merit the term "disease."

(To be continued.)

PROGRESS OF GERMAN MEDICAL SCIENCE.

By Dr. BUSHNAN.

(Continued from page 237.)

3. On the Anatomical Results of Acute and Chronic Rheumatism. — In 1813, and again in 1827, Chomel attempted to illustrate the pathology of rheumatism. Unfortunately his facts were few and insufficient, and since that time nothing of a very satisfactory nature has appeared upon the subject; nor even can we here except the "rheumatic callous" of Froriep; and hence, up to the present day, the terms rheumatism, rheumatic fever, &c., have proved a sort of "refuge for the destitute," beneath which an ignorance of diagnosis and of pathology has found a frequent and convenient concealment. I need scarcely notice the pamphlet of Gottschalk (Cologne, 1845), nor the treatise of Griesinger ("Roser and Winderlich's Archiv.," 1846); for we learn little from them but what we knew before; indeed, further discussions upon symptoms are not required: we want anatomical results; and when we consider how rarely people die of rheumatism, and, when they do, that our anatomical researches are chiefly confined to the heart and its investures, we must hail with pleasure any well-observed and recorded facts—such as those which I am about to relate by Professor Hassé, of Zurich—that bear upon this much-to-be-desired investigation. There is no question that many diseases called rheumatic are plainly of an inflammatory character, especially those attacking the serous sacs; but still there remains a far greater number of which, as yet, we possess not the slightest anatomical knowledge; of these especially are those in which we find no change of form in the part affected during life, or at most something corresponding to the rheumatic callous of Froriep, and which, as they are not fatal, afford rare occasion for *post-mortem* examination. It is to such cases as these that Professor Hassé has directed his attention; and, as he says, it is only lately that "he has succeeded in coming upon the traces of the anatomical changes they produce." He first describes the case of a girl, aged twenty-five, who had died of consumption in the hospital under his direction, and who, fifteen months previously, had suffered severely from rheumatism; symptoms of endocarditis had appeared and been overcome. On dissection, the joints which had been affected were examined; and it was found that their cartilages exhibited, instead of their normal blue and whitish colour, a red appearance, which was much darker beneath the surface. This was especially the case in the astragalus, which presented many dark-red spots; and, in cutting through this bone, these seemed to have penetrated from two to six lines into its osseous structure. Under the microscope, this dark-red mass was found to be composed of a series of globular and flattened cells, not to be mistaken for those of the fatty cellular tissue, and of a diameter of 0·0046‴ to 0·0056‴, some containing a rather large nucleus, and others two or three smaller nuclei, perceptible either at once under the microscope, or when treated with acetic acid. Near these red spots a quantity of shrunken blood-globules were perceptible, and to which probably they owed their colour.

This important discovery induced Professor Hassé to examine, after death, the bodies of persons who, when living, had assured him they had not been afflicted with rheumatism; in these he could never discover similar appearances, while they were always present in those who had suffered from the disease. Professor Hassé in his paper relates ten such cases, and intimates that he might have enumerated several more; and, however important these may be, want of space obliges me, however reluctantly, to refer the reader for the details to the original communication in the "Zeitschrift für rationelle Medicin," vol. v.; while I briefly sketch from them the general anatomical results of acute and chronic rheumatism, and the deductions that are to be drawn from the important discoveries of Professor Hassé, which are now for the first time, and through the medium of the *Medical Times*, made known to the profession at home.

It appears then, from a careful analysis of the cases of Professor Hassé, that nearly every species of organic change may follow rheumatism: softening and thickening of the affected part of the bone (the first, when the exudation is not absorbed; the second, when it has become organized and changed into osseous structure); destruction of the bone, forming depressions, cavities, and absorption of its apophyses; and ultimately, in many cases, atrophy and softening of the articular cartilages. The cells above described are not, therefore, to be confounded with the cells which fill the canaliculi of the bones of the fœtus and new-born infant, as have been described by Todd and Bowman; they are distinctly a new formation, the result of exudation; for in healthy adults only fat cells are to be found filling the spongy tissue of the bones. Lastly, by this discovery of a new mass filling the interstices of bones in those parts which have been affected with rheumatism, a tangible and material character is given to a disease, the nature of which has hitherto been mysterious or unknown; while the practitioner is taught to persevere in his antiphlogistic treatment and counter-irritants, and not to wonder at the length of time he is obliged to devote to the cure.

4. On the Etiology of Puerperal Fever—Puerperal Peritonitis—"*vulgarly* called puerperal fever," by some authors; but as I think one term is quite as good as the other, nor can I see any advantage in what has been well termed an "onomatomania," since it obliges us to learn two names instead of one, especially since names generally are

> "Not bad *simpliciter*, nor good,
> But only as they're understood."

And in the present case, perhaps, the old name *is* the better of the two; since, without clearly seeing the why and the wherefore, most practitioners of the present day are painfully convinced of the infectious nature of what I must still call *puerperal fever*; and, if names are useful only so far as they lead to the right understanding of the nature of things, the old term is, therefore, certainly preferable to the new one. We have seen, then, puerperal fever, both in an epidemic and sporadic form; we have read of the two hundred and twenty-two cases which occurred in 1829, in the Maternité at Paris; and we know that there is scarcely an accoucheur in great practice who has not at times had a succession of cases occur to him. This was remarkably evidenced in the practice of the late Professor Hamilton, of Edinburgh, in 1830-31; and, as I believe, later in that of that excellent practitioner, Dr. Thatcher, of the same place. I think a recent discovery of Dr. Semelweis, of the General Infirmary of Vienna, is likely to throw much light upon this hitherto-mysterious subject. During the last year puerperal fever reigned to a great extent in the maternity wards of that institution; and, after many means had been vainly tried to check it, it was arranged that neither professor, pupils, nor nurses should make an examination of a woman in labour without previously washing their hands in a solution of chloride of lime. Before this regulation was enforced, 18 out of 100 lying-in women died, while immediately after it the mortality was reduced to less than two and a half per cent. I must here explain to the reader that, on the Continent, clinical lectures are given in the midwifery hospitals; and that professors and pupils proceed through the wards and to each bed, examining one after another, and with unwashed hands, many women in different stages of labour. Here, then, is a reason for the ravages puerperal fever will sometimes commit in public hospitals; and now, too, we may understand why it sometimes accompanies an accoucheur from patient to patient. I am very far from bringing a charge of uncleanliness against the English practitioner, still less against the private practitioner; but it is very natural to suppose a hasty lavation of soap and water may not always

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remove virus from his hands. It may lurk about his nails or elsewhere, and remain there until deposited in the vagina of the next woman he examines. At any rate, an accoucheur may as well carry in his pocket a bottle of the solution of chloride of lime as one of eau de cologne; nor, after the remarks of Dr. Semelweis, is he justified in neglecting the precaution, if, indeed, he is not liable to come under the jurisdiction of the coroner.—*Zeitschrift der K. K. Gesellschaft der Ärzte zu Wien*, Dec., 1847.

(To be continued.)

PROGRESS OF MEDICAL SCIENCE.

Acetate of Lead in Tympanitis.—Dr. Badeley, mentions a case of temporary intestinal obstruction, with excessive lymphatic distention, in which the best effects followed the exhibition of the acetate of lead. Purgatives had failed to procure an evacuation. Vomiting supervened, with hiccough, and the coils of distended bowels could be felt through the abdomen. Feeling convinced that the symptoms depended upon a loss of tone in the muscular fibres of the alimentary canal, alum was ordered, with turpentine injections, and having failed, three grains of the acetate of lead, with one-sixth of a grain of morphia, were given every four hours. This was soon followed by the expulsion of large quantities of gas, and copious dejections. The hiccough and vomiting declined, and the man was soon convalescent.

Inflammation of the Spleen, and Suppuration.—Dr. J. D. Holly, of Lowndesborough, Alabama, was requested to visit a youth, aged fifteen years, who had laboured under intermittent fever. He now complained of excruciating pain in the left hypochondrium, extending as far as the clavicle, increased on pressure, with sensation of cold, and partial rigor; considerable nausea, dry cough, more than ordinary symptoms of pyrexia; great weight and fulness in the left hypochondrium, involving the upper portion of the lumbar space, with pain on respiration; slight hæmatemesis, with accelerated pulse; tumour extending from the origin of the cartilages of the ribs on the left side to the mesial line in one direction, descending to the ilium (crest), occupying the upper portion of the lumbar space. Venesection, both local and general, was practised, cups applied to the left hypochondrium and lumbar space, with partial abatement of the foregoing symptoms. Vesication was resorted to, over the whole space occupied by the tumour, followed by the ordinary purgatives. After an interval of five days, pills of sulphas ferri x., aloes soctari ℈iss., sulphas quinæ, were ordered. The patient complained of a dull, heavy pain, with a peculiar burning sensation, in the region of the spleen; striking as far as the spine and clavicle; attended with a fulness and throbbing, and an increase of the tumour. Shivering came on at intervals, terminating in slight perspiration over the most œdematous portion. Warm fomentations of hops were applied, wrung out in warm water, followed with a poultice of linseed-meal, copiously sprinkled over with mustard, without any perceivable change in the character of the enlargement. Caustic (the *potassa fussa*) was then had recourse to, in the solid form, well pointed, not in paste, as is sometimes used. On the following day the purulent fluid found an outlet externally (immediately over the splenic region), and large quantities of a dark puriform discharge came away through the opening; it was then dressed with common meal-poultice. The patient at this time was much emaciated, from large quantities of pus being added to the circulation, producing hectic fever, accompanied with diarrhœa. He was put under the use of nourishing food, wine, tonics, &c., which were used sparingly for a short time, and afterwards gradually increased. The diarrhœa was stopped with opium, astringents, and absorbents. For the inordinate perspiration, the *acidum sulphuricum aromaticum* was used, with the happiest effect. A tent was then introduced through the opening in the abdominal wall, in order to keep up the discharge from the spleen. Discharge has soon stopped; the left hypochondrium is much excavated, from the large quantities of pus evacuated from the spleen.

Aneurism of the Arch of the Aorta.—Dr. Fletcher exhibited, at the Birmingham Pathological Society, a sacculated aneurism of the arch of the aorta, taken from a patient who had suffered from vertigo, loss of memory, and want of power to express himself. This state was ameliorated by rest, and increased by exercise or excitement. Leeches, rest, and attending to the secretions, and absence from all sources of excitement, in the course of three or four weeks brought the patient into a better state, and he lost all the symptoms of cerebral affection. At this time, on examination of the chest, an aneurism was discovered, the upper portion of which passed up into the neck, just behind the sternal attachment of the left sterno-cleido-mastoid muscle. It had not caused the patient any local inconvenience, neither did he know of its existence. The aneurism did not increase in size. The patient eventually had attacks of peritonitis, attended with excessive depression; and he sank in three days from the commencement of the last attack. At the *post-mortem* examination the heart appeared healthy; aorta dilated and much studded with atheromatous deposit; an aneurism was situated in the arch of the aorta, between the origins of the arteria innominata and left carotid, and extended upwards about four inches, crossing obliquely the course of the trachea, so that its apex was situated under the origin of the left sternal attachment of the sterno-mastoid muscle. Into the base of the aneurism opened the arteria innominata, and the right common carotid, and the subclavian arteries on their respective sides, close at its base. The opening of the left subclavian was almost obliterated; it allowed the passage of only a very fine probe. The aneurism was divided into two sacs, by a band across its posterior wall, about two-thirds of its height from the base; both sacs were filled with very firm clots, composed of transverse layers of fibrine, very firmly adherent to the walls of the aneurism, and to each other, so that the aneurism may be said to have been undergoing the process of a natural cure. Immediately after giving off the left subclavian, the artery was of its normal state and size Lungs healthy; some old adhesions of the pleura on each side.

Cataract composed of Phosphate of Lime.—M. Magne relates the case of a patient, aged 47, who had, 25 years previously, got some sparks of melted silver in his eye, which occasioned the cataract in question. One morning, on getting up, the cataract had fallen forward into the anterior chamber of the eye, apparently in consequence of a violent fit of rage into which he had fallen the night before. Violent pain and inflammation supervened, and M. Magne performed the operation of extraction, which was done with difficulty, owing to the restlessness of the patient. It was a perfectly hard capsular cataract, and an analysis by M. Lesueur showed that it consisted entirely of phosphate of lime, with a very small quantity of animal matter.

Use of Glisson's Capsule.—M. Petrequin regards it as destined to facilitate the portal circulation. The liver, he says, is a compact organ, not readily admitting of being distended; there is no heart to impel the blood through the vena portæ, nor are there any valves to sustain the column of blood in it; the capacity of this vein is also greater than that of the mesenteric artery, to which it corresponds, and it is one of the vessels whose calibre is most variable, because, from its relation to the digestive organs, it must admit of dilatation when fluids are absorbed, and be enabled to contract when those fluids have passed off. These various obstacles to the portal circulation are counteracted, and the power of accommodating the capacity of the vessel to its contents is ensured, by its running in a fibrous sheath, and being quite independent of the tissue of the liver; it can dilate or contract as the quantity of fluid traversing it increases or diminishes, and it can also contract so as to press on the blood it contains, and thus favour its circulation.

Fracture of the Clavicle.—M. Velpeau, quoted in "The Provincial Journal," remarks that the most complex apparatus are in nowise preferable to the following simple plan of treatment in fracture of the clavicle:—A bandage is carried from the armpit of the sound side across the back and shoulder to the fractured clavicle. The patient's hand is brought up to the sound acromion, so as to raise the elbow as high as the sternum, the shoulder being thrown backwards and upwards. Whilst an assistant holds the limb, the bandage is repeatedly passed over the anterior part of the arm, and brought round by the sound armpit; and over this is passed one well moistened with dextrine, so as to produce an inflexible mould. The bandage need not be put on for four or five days after the accident, and in from a week to a fortnight the fracture will be sufficiently firm to allow of its removal. It is an error to suppose that a patient cannot raise his arm to his head when his clavicle is fractured. He believes he cannot, and is prevented from trying by the pain this causes. But if you insist upon it, and that not doubtingly, you will find he can accomplish it. I have not seen six exceptions in twenty years.

Mortality and Mean Length of Abode of the Patients in the Large Hospital of Milan from 1811 *to* 1844, *and in that of the Brothers of Charity from* 1604 *to* 1844.—The following conclusions are drawn from Dr. G. Ferrario's first table of the mortality, &c., in the large hospital at Milan, during thirty years:—1. The mortality of the sick in the great hospital of Milan, monthly and annually, is constantly greater in females than in males, in the proportion of 2 to 6 per cent. 2. The mortality from November to the end of April (that is, the whole winter and spring) varies in males from 14 to 19 per cent.; in females from 16½ to 24½ per cent.; and the total mortality of the two sexes from 15 to 21 per cent. 3. The mortality from May to the end of October (that is, summer and autumn), in males, varies from 7½ to 12 per cent.; in females, from 11½ to 14½; and in both together, from 9½ to 13 per cent. 4. During the whole period, the mortality of males, and of both sexes taken together, is at the minimum in September, it begins to increase in October, and continues to increase until it attains its maximum in January. It begins to decrease in February, and continues to do so in the succeeding months of spring and summer, and attains its minimum in August, and particularly in September. 5. The mortality of females, calculated alone in the six months of winter and spring, proceeds in exact proportion with that of the males, but differs in the other months. The minimum mortality of females is in August, and begins to increase in September, proving that females suffer more quickly than males from the morbid influences of autumn, and from the cold of winter. 6. The mean annual mortality of males was 12·41; and of females, 16·13; and of both sexes, 13·82 per cent., including those brought dead, or in the last moments of life, to the hospital. It is to be observed, that about 400 chronic incurables are always in this hospital. The stay in hospital was always longer in females, exceeding at least two days that of males; and in August four days. The mean stay during the thirty years, was thirteen days for males and fifteen for females. It is stated that the Milanese females are much less willing than the males to go to hospital, preferring rather to be treated at home by the permanent physicians for the poor. Their number in hospital is always less than that of males, and their diseases are in a more advanced stage. In the other hospital the mean stay was twenty-one days and a half. This increased time is owing to the convalescents being detained for a longer period, as there is a large ward set apart for them, and they are selected from the better class

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of the lower orders, poor but not destitute, whereas no distinction of this kind is observed in the larger establishment. It is the opinion that great benefit would result from trials of any given remedy, or plan of treatment, in the same months in all the principal cities of Europe; and that thus some appreciation might be made of meteorological influences in modifying the effect of remedies, by comparing the mean mortality and duration of treatment.

Morbid Anatomy of the Cholera.—Dr. Parkes, in his work "On Asiatic Cholera," gives a summary drawn from a comparison of forty-six dissections; of these, thirty-nine died in the blue or collapsed stage, and seven of the subsequent febrile affections. In the head, accumulation of blood in the veins of the dura and pia mater, and effusion of serum or of blood consequent upon this. This congestion is sometimes as great in recent cases as in those of consecutive fever with head symptoms. In one case, there was a collection of adhesive mucus in the laryngeal ventricles; in several, there was frothy mucus in the trachea, and slight redness in the same situation, general or confined to the bifurcation. In the majority of cases, the parts were unaltered. The most common appearances in the lungs were the presence of blood in the large vessels, chiefly or solely; the collapse of the parenchyma, and deficient crepitation, arising from the more or less complete absence of air and blood. In other cases, there was more blood in the capillaries, a corresponding dark colour of the lung, and an amount of frothy serum which bore an inverse ratio to the degree of collapse. The right side of the heart, and the pulmonary arteries, were generally filled, and in some cases distended, with blood. The left side and aorta were usually empty, or contained only a small quantity of dark blood. In some cases, there were well-formed coagula in the heart, of more or less firm consistence; whilst, in others, the blood seemed wholly incoagulable. Even when coagula (so-called polypi) reached into the pulmonary arteries and venæ cavæ, the remainder of the blood was dark, viscid, and permanently fluid. Whether coagulated or not, the blood was usually of a dark colour, described by authors as "carbonaceous," "tarry," "unoxygenized." When brought in contact with the air in thin layers, it generally acquired an arterial tint. Nitrate of potash, chloride of sodium, &c., added to the blood, communicated to it a bright arterial hue. The serum presented the appearance of a thickish dark fluid, which gradually, after the lapse of twenty-four or thirty hours, deposited a loose cloud of colouring matter. It contained abundance of albumen, and always coagulated firmly on the application of heat. It contained, also, some of the salts, as it never failed to give, with nitrate of silver, a dense curdy precipitate, becoming dark on exposure to light. In the liver, blood was accumulated in the larger branches of the vena portæ and hepatic vein. The gall-bladder was moderately full, and the bile thick and viscid, but not stringy, as in some cases of dysentery. The spleen and kidneys presented nothing unusual. The stomach was often distended with a watery, pale, subalbid, yellowish, greenish, or greyish fluid. This was not coagulable by heat, but gave, in several experiments, a dense curd of precipitate with nitrate of silver. The contained fluid often smelt strongly of medicines which had been taken even a considerable time before death. When less distended, the stomach was corrugated, and the mucous membrane was as rugose as the stomach of a dog. The small intestines appeared generally dilated, and in every instance contained more or less of a peculiar fluid. The agminated and solitary glands were enlarged in the majority of cases; this enlargement, however, differed exceedingly in degree. They were most conspicuous in the least severe and in the prolonged cases, in which there is the greatest amount of purging. There was no ulceration or sloughing of these agminated glands in any case, and in two only was there ulceration of the solitary glands. In about half the number of cases the colon was contracted. The degree to which this was carried was sometimes extraordinary, but bore no relation to the amount of purging. The glands were visible in every case, sometimes presenting dark central spots or dots. The fluid effused into the alimentary canal was generally found in the small intestines, and was one of the most constant after death appearances. In colour it was white, subalbid, or of a light grey-yellow or chocolate tinge. The fluid consisted of a thinner and a thicker portion, and its consistence varied according to the quantity of these component parts. The thicker portion was flaky, stringy, curdy, or clotted: it was not spread uniformly over the surface, but lay in masses here and there, as if it had been deposited from an agitated fluid: some of these masses, or bundles, often adhered with considerable firmness to the mucous membrane, and were detached with difficulty from between the valvulæ conniventes. It had a peculiar albuminous caseous smell, more developed by heat. In amount it varied greatly. In one case three pints were measured, but there was sometimes much more than this, and sometimes less. The thin serous fluid became cloudy and turbid by heat in some cases, but in the majority of instances it resembled the thin serous stools in being incoagulable. It precipitated nitrate of silver in every case. Occasionally there was an alkaline reaction: but this was not constant. When the clotted substance was separated from the thin fluid, and heated in a solution of liq. potassæ, or of carbonate of soda, it dissolved with greater or less facility. In ten trials the solution was almost or quite perfect; in a few other cases a portion was left undissolved. Nitric and sulphuric acids immediately gave a copious white precipitate when added to the alkaline solution. It was only occasionally soluble in acetic acid. There can be little doubt that the rice-water stools consist of the thinnest parts, which pass off, while the thicker clotted portion is retained, or appears in small quantities in shreds or flocculi. It seems probable that the peculiar stools consist of part of the water and salts of the blood mixed with a considerable amount of fibrine, and that they consist principally of the ingredients which have been found diminished in the blood. The bladder was always found contracted, sometimes to an excessive degree.

Hydatids in the Uterus.—Mr. J. B. Brown relates in "The Obstetric Record," the case of a woman, aged forty years, and the mother of four children, who applied to him, stating that she was about four months advanced in pregnancy, and that she had been troubled with a great discharge "per vaginam," of a dark brownish colour, and most offensive to the smell. The mammæ were not so large as previously, but she had pain constantly darting through them, accompanied by soreness of the nipples. She had experienced morning sickness; had frequently suffered from sudden and violent pains, through the lower portion of her stomach, which obliged her to sit down. The os uteri was high up and tender to the touch; and the uterus enlarged to a size accompanying a four months' pregnancy. A month afterwards, during which time these symptoms continued unabated, flooding profusely came on. On examining some coagula that had escaped, some hydatids were discovered attached to them; the hand was introduced into the uterus, and a large quantity of hydatids, mixed with coagula, sufficient to fill a full-sized chamber utensil, removed. Of hydatids alone there were at least two quarts. The whole mass closely resembled the spawn which is seen in ponds, deposited by toads and frogs. The hemorrhage immediately ceased, and the patient gradually recovered under a course of steel medicine, and has since menstruated regularly. The peculiarity of this case consists in the large quantity of hydatids parted with, as few writers have recorded any cases similar in that respect.

APOTHECARIES' HALL.—Gentlemen admitted members on Thursday, Feb. 24: — Charles Jennings; John Farmer, Hereford.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TWO CASES IN WHICH THE HAIR, TEETH, AND SKIN, WERE VERY IMPERFECTLY DEVELOPED. By JOHN THURNAM, M.D., Medical Superintendent of the Retreat, near York.

In this paper the author described the cases of two cousins, who were distinguished through life by the almost complete absence of the hair, by the teeth being not more than four in number, by the delicate and defective structure of the skin, and by the absence of sensible perspiration and tears. The author embodied in his paper a description, by Mr. Erasmus Wilson, of the microscopic character of the skin in one of the cases, from which it appeared that the dermis was in a state of extreme laxity and apparent atrophy. The sudoriparous glands were not wanting, but their ducts were unusually delicate, and their epithelial and, consequently, secreting lining was very thin. The patient died, at the age of fifty-eight, from disease of the lungs. The author pointed out and considered some of the physiological and pathological questions connected with these cases, and concluded his communication with a notice of such analogous instances as have been recorded.

ON CERTAIN PATHOLOGICAL CONDITIONS OF THE BLOOD AND URINE IN GOUT, RHEUMATISM, AND BRIGHT'S DISEASE. By ALFRED B. GARROD, M.D., Assistant-Physician to University College Hospital.

The author commenced by alluding to the ideas of the ancients as to the nature of gout, and then spoke of the views held at the present time, remarking that the balance of opinions was in favour of the humoral pathology of the disease; but that, up to the time when his researches commenced, no proof had been afforded as to the nature of the *materia morbi*, and even the existence of any such alteration in the blood had not been positively ascertained. The object of the author's researches is to prove that—

1. In gout the blood always contains uric acid, and that this body can be crystallized from that fluid in the form of urate of soda.

2. That the uric acid is diminished or absent in the urine immediately preceding the gouty paroxysm.

3. That, in patients subject to chronic gout with tophaceous deposits, the uric acid is always present in the blood and deficient in the urine, both absolutely and relatively to the other organic matters, and that the chalk-like deposits appear to depend on an action in and around the joints, &c., vicarious to the "uric acid secreting function" of the kidneys.

4. That the blood in gout sometimes yields a small amount of urea (no albumen being present in the urine).

Quantitative analyses and observations in favour of these conclusions were then detailed, and also the method used for separating the uric acid and urate of soda from the blood. Dr. Garrod thought it probable that the presence of a small amount of urea in gouty blood might be the cause of one of the symptoms which distinguished gouty from rheumatic inflammation—viz., the slightly œdematous condition of the inflamed part.

The author next spoke of some experiments made on the blood of the sheep, and of birds. Sheep's blood was not found to contain uric acid, and even from the blood of the pigeon, whose urine consists almost entirely of that substance, none could be obtained. Human blood, from patients in tolerable health, was always found to yield a trace of uric acid, but a quantity exceedingly minute, compared with the amount in gouty blood.

The next researches were made on patients suffering from acute rheumatism, and it was found that rheumatic blood contains no more uric acid than the healthy fluid, and no urea can be extracted from it. Analysis made on the blood and urine in Bright's disease appeared to show that, in albuminuria—1, the blood always contains uric acid, but that the amount of this sub-

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stance is subject to great variation; 2, that urea exists in large quantities in the blood (which has been proved long since), and that there appears to be no relation between the amount of the urea and uric acid; 3, that the kidneys are always deficient in their power of throwing off urea, but that, with regard to the uric acid, their excreting function is sometimes much injured, at other times little affected.

In conclusion, the author thought that the results detailed in the communication led to the inference, that uric acid is not a product of the action of the kidneys (as has been often supposed), but that it is merely excreted from the system by these organs: also, that the excreting function of the kidneys, for the solid portion of the urine, is not simple, but that the urea and uric acid are separately eliminated, and that one of these functions may be impaired or destroyed, the other remaining entire; it appears, also, probable that, as in albuminuria, the "urea excreting function being chiefly impaired, we find a vicarious discharge of this body in the dropsical effusions;" so in gout the "uric acid excreting function" being defective, the tophaceous deposits are produced by a similar vicarious discharge of urate of soda. Gout would thus appear to depend on a loss of power, temporary or permanent, of the "uric acid excreting function" of the kidney; the premonitory symptoms, and those also which constitute the paroxysm, arising from an excess of the acid in the blood, and the effort to expel this "materies morbi" from the system. Any undue formation of this compound favours the occurrence of the disease; hence the connection between gout and uric acid calculous disease, and the influence of high living, want of exercise, &c., in inducing it. Thus, also, the hereditary nature of gout, and its frequent occurrence in low states of the system, can be explained – facts which were generally regarded as militating against the humoral pathology of the affection. The above researches appear also to remove acute rheumatism from gout, and to render it probable that they are only analogous in affecting similar structures.

LINNEAN SOCIETY OF LONDON.

Feb. 15, 1848.

Reported by Dr. W. H. BROWN, F.L.S.

The Lord Bishop of Norwich, President, in the Chair.

The following works were announced as having been received since the last meeting, and thanks were voted to their donors:—"Abhandlungen aus dem Gebiete der Naturwissenschafter," vol. 1, presented by the Natural History Society of Hamburg; No. 13 of "The Quarterly Journal of the Geological Society," presented by the society; vol. 17, part 2, of "The Journal of the Royal Geographical Society," presented by the society; "Monografia delle Pleurolome Fossili del Piemonte," presented by the author, M. Luigi Bellardi; part 1 of "The Entomology of Australia," presented by the author, G. R. Gray, Esq., F.L.S.; part 8 of "The Elements of Conchology," by Lovell Reeve, Esq., presented by the author.

Robert Hudson, Esq., elected January 18, attended, and was formally admitted a fellow; Charles Cogswell, M.D., of Halifax, British America, was balloted for as a fellow, and elected. A paper was read "On the Early Stages of Development of Lemania Fluvitalis," by G. H. Thwaites, Esq., lecturer on botany and vegetable physiology at the Bristol Medical School.

The author accounted for Lemania fluvitalis escaping the observation of botanists by its similarity to Trentepohlia pulchella, not only in colour and appearance, but also in situation of growth. It is found towards the end of November covering the surface of stones with a dark-olive coating, and adhering by means of its minute roots so intimately as scarcely to be removable without incurring destruction. The plant, examined minutely, consists, in the early stage, of numerous filaments, about a line in length, slightly branched. Each of these is about $\frac{1}{1100}$ in diameter, and consists of a single row of cells, containing colouring matter of a blue-green colour. So far its structure is similar to a minute conferva, but it bears merely the same relation to the mature lemania that the confervoid shoots do to the perfect moss, or the mycelium to the fully developed agaric. Kützing, in his "Physiologia Generalis," has described and figured a species (Lemania torulosa) strongly resembling the one under consideration. From a cell near the base it emits a branch, differing somewhat from other branches, which, having pushed its growth to an extent requiring greater support and nutriment than that derivable from the parent part, it emits roots which establish for it a separate existence. The paper concluded with a recommendation to botanists to study the development of the Algæ, the result of which must be the acquisition of many new facts interesting and important alike to the physiological and to the systematic botanist. It is highly probable, the author considered, that very many of the structures now classed with the Palmelleæ are merely immature states of more complicated species; and that there are, perhaps, many others of the same character which we at present look upon as being in the condition of complete maturity. The minuteness of the investigation, however, renders both a practised eye and a good microscope indispensable.

REVIEWS.

Elements of Natural Philosophy; being an Experimental Introduction to the Study of the Physical Sciences. By GOLDING BIRD, A.M., M.D., F.R.S., F.L.S., &c. 12mo. pp. 552. London: John Churchill. 1848.

Dr. Golding Bird's work on natural philosophy again appears before us, and now in its *third* edition. In 1839 the first edition was published; in 1844 the second; and now, in 1848, we have the third. This circumstance alone, of a work on natural philosophy, published in a series, with other volumes of a purely professional character, and which gives the whole series more or less of the same tone, going through three editions in so comparatively a short space of time, is in itself a sufficient guarantee of its value.

We think that the volume before us is second to none of the useful set of manuals with which Mr. Churchill has furnished the profession, either as it regards the learning and research of the author, or the care he has taken in putting the subject before his reader in a clear and intelligible light.

Dr. Bird's knowledge of the scientific portion of the subject upon which he writes is not greater than his literary acquaintance with it, and his pages are replete with the interesting history of the progress of natural philosophy.

The author never omits to make liberal acknowledgments of the sources from which his information is obtained; and these must necessarily be numerous, considering that the work is the product of a physician connected with a large hospital, and in busy practice; for, to expect much originality would be absurd under such circumstances.

The return of the volume to the hands of the author has not been neglected by him, and he has in this edition made several improvements, and which make his work quite up to the present state of science. Of these additions, the most important are an excellent epitome of Dr. Faraday's discoveries on *magnetic induction*, which were a little more than two years ago communicated to the Royal Society, and a well-digested abstract of Professor Matteucci's investigations of the subject of *organic electricity*; and he also shows that a considerable portion of the latter had been anticipated by Professor Aldini, of Bologna.

Dr. Bird has managed in a very short space to sum up the principal part of Dr. Faraday's "Observations on Magnetic Induction;" he writes:—

"Hitherto, when a body, not itself possessing magnetic properties, has been alluded to as obedient to the action of the magnet, we have found that it is equally *attractive* by both poles.

"Dr. Faraday, however, discovered the remarkable fact that a vast number of bodies are mutually *repelled* by both poles. And thus, when formed into bars and suspended by means of a long and slender thread between the poles of a powerful magnet, they vibrate, and ultimately come to rest in a line equidistant from both poles, and perpendicular to the lines of magnetic force: a direction, consequently, at right angles to that taken by a bar of iron."

The author, after stating that an electro-magnet is the best, because the most powerful, instrument with which to try these experiments, goes on to say, that, upon suspension over the magnet, "the iron bars instantly become powerfully magnetic, and the body placed in the cradles will either be attracted by both poles and assume a corresponding position, or be repelled by both, taking up a position at right angles to the line connecting them; or, lastly, be quite unaffected. A bar of iron will illustrate the first condition, one of bismuth the second, and a tube full of air the third.

"These bodies, which are attracted, however feebly, by the poles, Dr. Faraday proposes to call *magnetic*, according to the general custom; those which are repelled he terms *dia-magnetic*; whilst those which obey neither force are regarded as *indifferent*."

Further on he writes:—

"To produce the effect of pointing across the lines of magnetic force, the form of the *dia-magnetic* body must be long. A cube or sphere will not thus point, but two or three placed side by side in a paper tray will. But portions of any shape are repelled. Thus, if two fragments be suspended between the poles parallel to each other, they will appear to attract each other, in consequence of being simultaneously repelled by both poles."

Flint-glass, heavy glass, cylinders of phosphorus, sulphur, caoutchouc, ether, alcohol, oils, water, and blood, are all dia-magnetic.

"Animal flesh is thus acted upon; hence, as Dr. Faraday has observed, if a man were suspended over the poles of a sufficiently large magnet, he would be repelled, and point east and west.

"Among the metals the following were found to be the most energetically *dia-magnetic* in the order in which they are placed:—

"Bismuth.
Antimony.
Zinc.
Tin.
Cadmium.
Mercury.
Silver.
Copper.

"Bismuth is very readily thus acted upon, and a small bar of it two inches long and half an inch wide is perfectly fitted for the exhibition of the phenomena now described."

Dr. Bird concludes this notice of Dr. Faraday's labours by very properly observing that, though La Baillif had some years ago discovered that bismuth and antimony acted on the magnetic needle, and Coulomb shown the same relative to certain organic substances, still our own distinguished countryman is the philosopher who has alone elaborated these discoveries.

Our author, whilst taking an historical view of the subject of organic electricity, adduces evidence to show that many of the most important facts relative to these remarkable phenomena have long been known, and that for them we are indebted to Aldini, a nephew of Galvani.

It is strange, however, that, though the discoveries of Aldini have been published ever since 1803, they do not appear to have been noticed by subsequent authors who have written on this subject.

Relative to Professor Aldini, Dr. Bird makes the following interesting remarks:—

"He was inspired with so much zeal in defence of his uncle's theory, that he travelled through

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France and England for the purpose of demonstrating the truth of his views; and, in presence of the medical officers and pupils of Guy's Hospital, he, in the year 1803, supported and defended a series of propositions so satisfactory and conclusive that he was presented by his auditors with a gold medal commemorative of his labours.

"Professor Aldini's propositions and conclusions are so important and of such high interest, that I shall now briefly refer to some of them, as they appear to demonstrate in a most satisfactory manner the existence of free electricity in animals, and, as will appear to all conversant with this branch of physiology, most remarkably anticipate the late researches of his countryman, Professor Matteucci.

"Prop. 1.—'Muscular contractions are excited by the development of a fluid in the animal machine, which is conducted from the nerves to the muscles, without the concurrence or action of metals.'(a)

"Exp. (A.)—In proof of this statement, Aldini procured the head of a recently killed ox. With the one hand he held the denuded legs of a frog, so that the portion of the spine still connected with its lumbar nerves touched the tip of the tongue, which had been previously drawn out of the mouth of the ox. The circuit was completed by grasping with the other hand, well moistened with salt and water, one of the ears. The frog's legs instantly contracted; the contractions ceasing the instant the circuit was broken by removing the hand from the ear.

"The intensity of these contractions was much increased by combining two or three of these heads, so as to form a sort of battery, just as Matteucci, forty years after, found to be the case with his pigeon-and-rabbit battery.

"Exp. (B.)—Aldini, having soaked one of his hands in salt and water, held a frog's leg by its toe, and, allowing the ischiatic nerves to be pendulous, he brought them in contact with the tip of his tongue. Contractions instantly ensued from a current of electricity traversing the frog's leg in its route from the external or cutaneous to the internal or mucous covering of the body. By this very interesting experiment Aldini demonstrated the existence of the musculo-cutaneous current, and completely anticipated its rediscovery by Donné some five-and-thirty years after.

"Exp. (C.)—The proper electricity of the frog was found by Aldini to be competent to the production of contractions. For this purpose he prepared the lower extremities of a vigorous frog, and, by bending up the leg, brought the muscles of the thigh in contact with the lumbar nerves. Contractions immediately ensued. This experiment is now a familiar one, and has been repeated and modified lately by Müller and others.

"Exp. (D.)—A ligature was loosely placed round the middle of the crural nerves, and one of the nerves applied to a corresponding muscle: contractions ensued; but on tightening the ligature convulsions ceased."

We cannot conclude our notice of Dr. Bird's work without referring to one more improvement he has added to this edition, namely, a copious index of ten pages. We found the absence of it a source of inconvenience in the last edition, especially in cases of reference.

In conclusion, we would strongly recommend our readers to possess themselves of this little volume, which they will find an admirable digest of the subject of which it treats up to the present date. It is a book that should not only find its way into the libraries of professional men, but of all who would enjoy a liberal education, and which no one can justly be said to have attained who is ignorant of the philosophy of nature.

"Ingenuas didicisse fideliter artes, emollit mores, nec sinit esse feros."—OVID.

The typography of this book is of the same excellent description as the rest of Mr. Churchill's duodecimo series; but we must confess that in the woodcuts we cannot trace the artistical genius of Mr. Bagg, which adorns some of the others.

(a) Aldini. "An Account of the late Improvements in Galvanism." 4to. London, 1803.

THE MEDICAL TIMES.

SATURDAY, MARCH 4, 1848.

THE NEW SETTLEMENT.

Our age is epidemical. Potato-rot, Influenza, Cholera, Revolution, successively pass through the world, as if governed by one and the same atmospheric law; and scarcely has Paris yielded to the last disease making the great European tour, before its well-known symptoms, "liberty, equality, and fraternity," spreading with more than influenza rapidity, show themselves even in the halls of our old medical institutions. As a first result, Medical Reform ceases to look insuperable!

When representatives of the physicians, the surgeons, and the general practitioners can meet (without bloodshed) and unite (without a fee) on all the essentials of a legislative measure, where is the word "impossible?" It is as much erased from the dictionary as it was supposed to be in the first French revolution. There is a commencing wonder in the peaceful meeting and fraternal concurrence which annihilates all others, and makes even medical legislation look like a thing that may be.

And yet, perhaps, our surprise should be, not that the "different interests" are *at length* unanimous, but *so late*. It was people's prejudices that were irreconcileable, more than their interests; and the treaty of alliance, offensive and defensive, detailed by us last week, shows that even Medical Reform may have its uses for *all* the contracting parties—the most prejudiced corporation not excepted. It preserves the surgeons—a service they could by no means do for themselves—and it serves—most opportunely—the physicians from availing themselves of the new bankruptcy facilities; and, finally, it gives a habitation and a name to those unfortunate member-licentiates who, disowning one corporation and disowned by the other, rove the professional world like restless cuckoos, or those *manes* of the unburied dead known to mythological faith.

Whatever may prove its actual uses to the profession, it is not the less *an excellent corporative measure*. It give funds, permanence, and character, just where these things are needed; and nobody pays for the useful advantages but that nobody for whom none of us care—the man that comes after us. "Après nous le déluge." We have studied, been examined, have our diplomas; and if those behind us, while getting less for more money, contribute a trifle for an additional convenience or so (*to us*), there is a consolatory proverb to meet their misfortune—"The —— take the hindmost!" Medical Reform is not to be settled save at somebody's expense; and like that national expenditure which has conserved for this country a breed of thorough-blood gentry, on whom can we put the load with so little trouble (to ourselves) as the next generation?—a body whose feelings we are unquestionably not bound to look to on any special score of personal interest or gratitude.

With our best wishes it could hardly have been otherwise; unfortunately, those who undertook to settle Medical Reform for us have not those two favourable conditions to honest labour—a clear stage and no favour. Unlike the three or four writers who have just been surprised out of obscurity to the government of the French empire, they are not privileged with a *carte blanche* on which to try at will their legislative hand. If they please to legislate, they must legislate to please; and the rudiment of success would appear to be, that their pleasure-giving shall commence with the corporations. Bribe the physicians, surgeons, and apothecaries into content, and if, consistently with that *sine quâ non*, you can do something for the general practitioner, legislation is possible. That seems the problem of which the scheme of last week is the solution; and that, under such all but insuperable difficulties, the result is so much a treaty and so little a capitulation, is the highest honour we can pay those who negotiated for the general practitioners.

The main result they have won for us is, unquestionably, the new College; and what is its value? Just this:—

1. It clears the body of general practitioners from the taint of apothecaryship. The public will no longer disparagingly attribute to them, as their *alma mater*, the dingy, trading, drug concern in one of the back lanes of Blackfriars. That worshipful company of unsavoury odour will no longer stand between the popular wind and our professional respectability.

2. It unites in one compact, non-dissentient body every individual who has a fair claim to be recognised as a general practitioner. There is strength in such an aggregation.

3. It adds one diploma more to those already possessed, and may thus operate not unfavourably on public confidence.

4. It gives general practitioners an opportunity of governing themselves, and of educating and examining the future members of their body.

These are sufficient advantages, or we are mistaken, to make the new measure not unwelcome; but it is not to be disguised that a very cursory view of the scheme demonstrates, on the other hand, that the infant College will find prepared and organized for it no trifling drawbacks or difficulties.

It will not possess the chief, perhaps sole, *attraction* of the Apothecaries' Society—its compulsory clause. There will remain no means of preventing either the surgeon or the physician—English, Scotch, or Irish—from dispensing his own medicines; and from this and other causes time may, perhaps, show that there will be more general practitioners, but unavowed, connected with the College of Physicians as licentiates, and with the College of Surgeons as fellows, than with the college to which, legitimately, they are supposed to be attached. The Colleges of Physicians and Surgeons may be entered through Dublin and Edinburgh, as through London: one fee too will cover admission; but as the College of General Practitioners seems to be more especially adapted to an English education alone, and as its members, while paying the customary diploma fee to its support, have another of twenty guineas to pay the College of Surgeons, formidable disadvantages stand in its way, *only to be surmounted by raising for the new College a high—a very high—examining reputation.*

THE JUSTICE AND LIBERALITY OF CORONERS' JURIES.

It has been the fashion from "time immemorial" for the public to expect, whenever the services of a medical practitioner are required, that he

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should give them, whether there is a prospect or not of having his labours sweetened by reward. He has submitted, till lately, to this unjust requirement, either from fear of receiving an unmerited castigation, if any untoward event should arise, or because he has been taught that, his profession being a benevolent one, he must, *nolens volens*, keep up its character. His charity, however, in order to be acceptable to the public, must never begin in that place where a well-known proverb says it ought to begin—physic being supposed to have connected with it an inexplicable something that yields to the doctor profit without pay.

It is the misfortune of medicine that no parallelisms are supposed to exist between it and other callings. No people are so foolish as to imagine that the divine with a love for souls can live upon the mere marrow of divinity, or the lawyer by simply digesting "Coke upon Littleton:" the one receiving for a charity sermon the accustomed offering as a small acknowledgment of his piety and eloquence; the other, an established fee whenever a client solicits advice. Whoever expected a provision-merchant, for the love of God, to furnish any hungry man with food necessary to support him; or a tailor, moved by the same illustrious motive, to clothe one who possessed nothing but a few rags on his back? And it would be a novelty even for a coroner's jury, accustomed to do very extraordinary things, to append to their verdict a censure upon Messrs. Bacon and Cheeseman for refusing to furnish, when requested, an unfortunate deceased with the necessary food to save him from starvation; or upon Mr. Snip, for having objected to give a suit of clothes on demand.

Yet we have instances frequently occurring in which medical practitioners are expected to give their medicine and services whenever required, though they may not have the most remote prospect of obtaining pecuniary remuneration for their trouble. Dr. Berncastle has been persecuted for resisting so monstrous a requirement, and, had it not been for the efforts of the medical press, would have been ruined for his temerity. Within the last fortnight an inquest has been held at Sunderland on the body of an unmarried female, of the name of Mary M'Kenany, who died shortly after her confinement. According to the newspaper statements, the neighbours sent for Mr. Gregory, Mr. Johnson, and Mr. Potts, surgeons, to attend her, but none of them went. As a last resource, Mrs. Bell, a midwife, was applied to, but the child was born prior to her arrival. The deceased was then very weak. She was put to bed, and about ten o'clock the same morning was again visited by Mrs. Bell, who, it is said, again sent for the surgeons, but they refused to come. The woman gradually sunk, and expired the same evening. The jury returned a verdict of "Natural death;" and added that they felt compelled, in the discharge of a public duty, to reprehend the conduct of Messrs. Gregory, Johnson, and Potts, for refusing to attend deceased during the time of her labour, although they had been requested to do so; and Mrs. Bell was highly commended for the prompt attention and assistance rendered by her to the deceased.

These sapient gentlemen of the jury were, no doubt, brim full of benevolence, and it must have been satisfactory to them to give vent to their feelings in the local newspapers. This would cost them nothing, while their zeal in the cause of humanity would be applauded by their neighbours. We have some serious misgivings, however, that if any one of the gentlemen had been applied to, at the time the patient was in labour, for only a portion of the fee required, that his charity would have lacked the bathos needed to touch the bottom of his pocket. Would either of them have been ready to have paid the fee? With as much justice the neighbours might have gone to them for it, as to the surgeons for the needful attendance.

But, while the jury were so anxious to make a display of their humanity, it was unfortunately done at the expense of justice. The neighbours or the midwife condemned the surgeons, but these gentlemen, it appears, were not present to defend themselves, and it never occurred to the jury that the accused ought to be acquainted with the charges brought against them. Upon a one-sided statement a verdict was returned, and Mr. Johnson has since written a letter to the *Sunderland Herald*, saying that he did not refuse to attend the patient, and that a second application was never made to him.

Coroners' juries are frequently guilty of travelling out of the path of duty, that they may censure individuals—those whom they suppose have been guilty of some dereliction of duty; and medical men have suffered greatly from this abuse of power. It will be found, however, that jurymen often only express certain opinions which exist in the public mind; and, if this be true, we can see the sentiments commonly entertained of what a medical practitioner ought to do whenever he is summoned to attend a patient. The question of remuneration, it is thought, ought to be a secondary consideration in his mind; and numbers of unprincipled persons take advantage of this circumstance to evade the payment of a surgeon's bill.

The members of the medical profession have been instrumental themselves, to a great extent, in bringing about this state of things. They have been too ready to afford their "advice gratis"—too anxious to supplant those who have been their rivals; so that the public have understood that, if in a case of emergency one surgeon refused to attend, another could be found who would undertake the required work, and who also, if need be, could be made an instrument to chastise his offending brother. Many in the profession have, in times past, been so anxious to appear benevolent in the eyes of the world, that now the selfsame world would have all, whenever it requires, work for love. It may yet be taught a lesson of justice, and the members of the profession must be the teachers. Dr. Berncastle was right in resisting the Croydon Board of Guardians, and his example will exercise a powerful influence among his professional brethren.

While we regret that the young woman at Sunderland lost her life (though there is no proof whatever that it resulted from the want of medical attendance), we commend the surgeons for maintaining their right to just remuneration when services are required. If the patient could not pay for the requisite attendance, the parish should have provided it, and the proper officers should have been applied to before the expected travail. The members of the profession, in asserting their rights, detract nothing from their moral dignity, and they have only to be true to themselves to secure a larger amount of respect from the world.

MR. THOM'S REPORT ON CHOLERA.

Our readers will perceive, from the proceedings of the House of Commons, that the important report of Mr. Thom, as publishing in our columns, has attracted the honour of parliamentary notice. On the motion of Mr. Thomas Wakley, the House ordered that there should be printed for it, a "Return from the Army Medical Board of a copy of any report received from Alexander Thom, Esq., surgeon of her Majesty's 86th Regiment, relative to the causes, character, and treatment of spasmodic cholera, as it occurred in her Majesty's 86th Regiment at Kurrachee in June, 1846."

The compliment thus resulting from our publication of his paper must be very gratifying to Mr. Thom, and this not the less because so well deserved by the worth of his investigations. We publish the second portion in this day's journal.

PROFESSIONAL EXONERATION.

*** The following are the documents which, according to our correspondent (noticed last week), we are bound to publish, in fairness to the member for Finsbury, as forming the satisfactory answer to the extravagant rumour noticed by the plaintiff's counsel among the public details of the Hope Insurance case (reported in our pages). While redeeming our pledge of offering no obstacle to publish the following zealous and friendly exoneration by the very well-known ex-Sheriff Parkins (an exoneration which, though unnecessarily diffuse, we have thought it not fair to curtail), we may at the same time add that, if Mr. Wakley desires it, we will readily do him the further justice of opening our columns to him for any certificate from the respectable Mr. Rothwell (the other sheriff), or from his deputy (Mr. Turner), to whom, no doubt, applications were also made, and whose means of information, from their more active interference, would appear to be, if possible, even more conclusive than those of ex-Sheriff Parkins.—Ed.

(From the Annual Register, 1820. Sept. Vol. lxii., part I. page 441.)

Kentish-town, Sept. 21, 1820.

Sir,—From the period of my late catastrophe in Argyle-street, to add to my anxiety, I have been currently charged by a multitude of malignant slanderers as being the person who decapitated Thistlewood and his deluded companions in May last.

Your official contradiction of this disgusting falsehood, as sheriff of London, will confer a lasting favour on,

Sir, your obliged servant,
Thomas Wakley.

J. W. Parkins, Esq., Sheriff of London and Middlesex.

No. 10, New Bridge-street, Sept. 25, 1820.

Sir,—In answer to your note of the 21st instant, I feel myself bound to comply with its contents to the utmost of my power; but I am sorry to inform you that the whole of the disgusting business to which it relates was conducted with so much privacy and pertinacious concealment from me, that I was not even made acquainted with the order for the execution until the day after (Sunday, when I went to Newgate, accompanied with a clergyman) it had been determined upon, and orders given for erecting the scaffold, &c., by the Lord Mayor Bridges and my colleague, Mr. Rothwell, who, accompanied by his deputy, had, I understood, been the previous day at the Secretary of State's office arranging the same; and as to the man who decapitated the unfortunate Thistlewood and his companions, he was procured for that purpose by the prison surgeon, and his terms, £20, agreed for by Mr. Turner, Mr. Rothwell's deputy, and which wages Mr. Turner told me were repaid to him by the Home Department, as also £5 he paid to the man who held up the heads. I did not see the man who performed the duty until he appeared on the scaffold masked and dressed as a sailor. By the notice I then took of him (which was very particular) I perceived him to be in height about five feet five or six inches, and, in answer to my inquiry the other day (in consequence of your note) who the fellow was, Mr. Turner informed me that he was a resurrection-man, who obtained bodies for the hospitals;

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and that, when he asked him if he could perform the task of cutting off the heads, he replied, "Oh yes! that he could do it very well, as he was in the habit of cutting off nobs (heads) for the purpose of obtaining nackers (teeth.)"

I am glad, for the honour of our country's humanity, that it was no person of respectability, but a most illiterate and degraded being, as was also the wretched individual who held up the heads of the unfortunate men.

In addition to the above, I am credibly informed that the individual who decapitated Thistlewood and his companions was engaged by the under-sheriff from Yorkshire, to go there for a similar purpose; but in the performance of which sanguinary work, thank Providence, he has been disappointed.

I cannot conclude this letter without bearing testimony to the humane disposition of your heart towards the depraved young man who robbed you of your watch on the fatal night when crossing the road and bleeding from the wounds inflicted by the assassins and incendiaries who set fire to your house in Argyle-street.

I hope this assurance will convince every one, even the most malignant of your enemies, that it was totally impossible any one could mistake a gentleman of your appearance and height (which I consider to be about five feet ten inches) for the person (five feet five or six inches) who performed the sanguinary duty on Thistlewood and the others in May last.

I am, Sir, your most obedient humble servant,
J. W. PARKINS, Sheriff.

Thos. Wakley, Esq.

ANALYSIS OF "THE PROVINCIAL MEDICAL DIRECTORY."

[To the Editor of the Medical Times.]

SIR,—Not being aware that any analysis of the medical directories has been published, I have ventured to send you one of "The Provincial Directory" for this year. It may not be quite correct, but it is near enough for any practical purpose. I think it strongly shows the necessity of some new enactment for the protection of the qualified practitioner, and that the interests of some of the different medical corporations are not so deeply involved in the change as many have supposed. The necessity for some protection is shown by the large number of the unqualified (nearly 1500) enumerated in "The Directory;" and this number does not comprise the whole: there are several in my immediate neighbourhood whose names are not mentioned in the list; but, assuming them to be 1500, and that each of them realizes an income of £100 per annum, the medical profession is thus robbed of an annual income of £150,000, which, divided amongst the legally qualified, would exceed twenty pounds each. But their earnings will be double, if not thrice, that amount, for they invariably get prompter and larger payments than the regular practitioner. The public, also, instead of being benefited, is injured, as the greatest proportion of them have had but small opportunity of acquiring any knowledge of medicine, and, knowing the unsafe ground on which they tread, are ever ready to humour the prejudices of their patients. Every country practitioner knows how difficult it is to get a patient in whose family one of these gentlemen has ever been in attendance to follow his simplest directions. The amount of life that has been lost, and the permanent disease that has been entailed upon many, by these ignorant pretenders to the knowledge of medicine is incalculable. If the sum I have mentioned was divided amongst those who have only recently commenced their career of practice, it would prove a stimulus to their useful exertions; but how many are there sinking in despair for want of employment, or whose funds having been exhausted in the acquirement of their education, are forced to accept a remuneration for their services which the common labourer would scorn!

The noise about medical reform has been loud and long, and the difficulties have been represented as insurmountable. How often has the coroner said that a registration bill was all that could be hoped for at present; yet he has never made a successful effort to carry one through the House! Why did he oppose so strongly the bill of Sir James Graham? Why: to prolong the squabble and smuggle its chief provisions in a mutilated form into his own bantling. You said then, and said it truly, that if that opportunity was lost, medical reform would be deferred for an indefinite number of years.

In my opinion, nothing is more easy than the preserving of the interests of the different corporations; if they would lay aside their jealousy of each other, and confer amicably, I think that they would soon come to the conclusion that the interest of one is the interest of the whole. What obstacle is there but this jealousy to hinder the College of Surgeons and Society of Apothecaries from becoming one college, and giving a joint diploma which would entitle its holder to practise as a general practitioner? The fee for the joint diploma might be the same as it is now for the two single ones, and the amount cannot be considered too large, if it is properly spent for the benefit and protection of the profession. The diploma of the College of Physicians and the fellowship of the college might be reserved as further honours to be conferred on those who had benefited medical science by some useful discovery; or who, after being in practice for some years, had no objection to have their acquirements tested by a second examination; and on those who had pursued an extended course of education. This plan would preserve the interests of the English colleges. Edinburgh might grant degrees for Scotland, and Dublin for Ireland. Of course a provision must be made for those persons who are already practising in England, and who are in possession of a proper qualification, although it may not be strictly a legal one. Your efforts have been great for the cause of the general practitioner, and I feel confident that we shall yet reap the harvest of your great exertions, which I hope you will persevere in till the wished-for goal is attained.

I am, Sir, your obedient servant,
Feb. 19. H. A.

Since writing these remarks I have had the pleasure of reading your announcement that the colleges are already in amicable conference. I am sure every member of the profession will join you at the approaching consummation of our wishes, and in hoping that no captious objection or petty interest will again defer it.

ANALYSIS OF "THE PROVINCIAL MEDICAL DIRECTORY."

In practice before 1815, many being members of the College of Surgeons, surgeons in the army or navy, or in the possession of other qualifications	613
Licentiates of the Society of Apothecaries, many being in possession of Scotch or other qualifications in addition to their certificate	1004
Fellows and members of the College of Surgeons, many being in possession of other qualifications, but not having the certificate of the Apothecaries	1072
Members of the College of Surgeons and licentiates of the Society of Apothecaries, some of them being in the possession of other qualifications	3634
Members of the College of Physicians, or of the Universities of London, Oxford, or Cambridge	141
Members of the University of Edinburgh, some of them possessing other qualifications, but no diploma or licence from any English institution	334
Licentiates of the College of Surgeons of Edinburgh	110
Members of the University of Glasgow	52
Members of the Faculty of Physicians and Surgeons of Glasgow	26
Members of the University of Aberdeen, one practising in 1815	4
Members of the University of St. Andrew's, one having been an army surgeon, and another practising in 1815	5
Practitioners in possession of Irish qualifications	23
Practitioners in possession of foreign qualifications only	12
Practitioners placed in the qualified list, but without any qualification annexed	25
Total qualified	7055
Unlicensed practitioners	1488
Total	8543

THE NEW BILL.

[To the Editor of the Medical Times.]

SIR,—I am inclined to think that, if your account of the scheme of medical reform resulting from certain late conferences be correct, it will not prove so universally acceptable as you imagine.

You talk of mutual concessions, but I confess I see nothing of the sort—nothing but the old game of putting money into the coffers of the College of Surgeons. Get money, no matter how—only get money, is the one principle, and ought to be the motto, of that immaculate corporation; and I cannot conceive a plan better adapted to its purpose than the one now before me. Not content with its own business of making "pures," it is to have a finger in the manufacture of every general practitioner as well—a power which it has not hitherto enjoyed.

Allow me also to put one question. Does the college propose to confer its fellowship upon all those of its members who do not choose to enter the "lower grade" of the profession represented by the new corporation, or are they to be left without a "home"?

Depend upon it that, without this "concession," the scheme will turn out a failure. The council may think that the charter is all blown over and forgotten, but they will find themselves mistaken.

I am, Sir, your obedient servant,
Feb. 28. ECHO VERITATIS.

THE POOR LAW.

[To the Editor of the Medical Times.]

SIR,—The Croydon case has called forth some of the most splendid leading articles and letters in the *Medical Times* which I ever remember to have seen written on the subject "of the injustice of the present system of poor-law medical relief;" and I would recommend every one of your readers, if they are labouring under any present or past severity from boards of guardians, to come forward and publicly record it.

What does not the Croydon case bespeak? A bad state of public feeling, an indifference of boards of guardians towards us, a want of sympathy towards the poor; it tells us our present position is a false one; that, so long as we can defend them from a charge of dereliction of duty—so long as we can come in at the nick of time to save their credit—all is well; but if we cannot ward off a blow directed at them by a coroner's inquest, then we are sacrificed at the altar of opinion, whilst they remain unscared. Medical men know more of the working of the poor-law than any other class in the kingdom; they know how oft the poor man pines in flesh, and health, and spirit, before he sinks into the grave, for want of timely sustenance. We may dilate upon the inhuman theme for years if we do not find a remedy; that remedy must consist in the abolition of limited local rates, and taxing instead property of all descriptions, so as to create an adequate fund for the relief of the poor. I would make a difference between the sick, who should become an especial charge of the state; whilst the destitute, from want of work, should be provided for by the parishes, who always have means of employment at their disposal—cleansing, draining, road-making, if they are compelled to exert themselves for the public good. The rate-payers' pence should not, as now, be drained by lawyers, and the poor purged by Epsom salts. Poverty is a national calamity, not a local one. The *millionaire*, residing in a fifty-pound house, is not taxed sufficiently, perhaps not even at all. If one penny in the pound were collected, like the property-tax, and devoted to the proper maintenance and assistance of the poor, how few would die from want, how many would recover from disease! I would urge upon Government strenuously to take the whole medical relief into their own hands—the sole direction of the medical poor-law staff—the just remuneration of its officers, according to their districts' population average. Another body of men should be called into existence who can fashion our medical relief into a palatable sustaining principle; for how many human beings sink with our meat, rice, tea, sugar, even at their bedside! A different order of things must be established, and speedily; a different order of beings to administer the laws relating to the poor in sickness must be created; at present there is bad physic, bad attendance, bad dietary, bad nursing, and a hecatomb of victims sacrificed solely from the fact that a limited rating carries necessarily with it a grinding selfishness.

I remain, in haste, your obedient servant,
Bulwell. ALFRED EBSWORTH.

DR. BERNCASTLE AND THE GUARDIANS OF THE POOR OF THE PARISH OF CROYDON.

At a meeting of the surgeons to the parish of Birmingham it was unanimously resolved,—

"That this meeting considers that the conduct of Dr. Berncastle, in his attendance on the woman

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Hopkins, at Croydon, in January last, was highly commendable and humane.

"That the board of guardians, having refused to allow her to be a parochial patient (most unjustly, we believe), had no authority to interfere subsequently in the case under any circumstances.

"That such refusal having caused the cessation of Dr. Berncastle's attendance upon the case, his responsibility immediately ceased, and, whatever consequences might be attributed to such non-attendance, the blame must rest with the guardians and not with him, hence the charge of neglect against that gentleman, and his consequent dismissal, were entirely the result of his obedience to their own instructions.

"That after a careful consideration of the evidence adduced at the inquest, there is not the slightest foundation for any charge of neglect against Dr. Berncastle, or for the unmanly and oppressive conduct of the guardians towards him, or for the extraordinary and illegal verdict of the jury.

"That the ingratitude evinced towards that gentleman for his gratuitous attendance on a poor woman in a case of emergency is calculated to have considerable influence in preventing the gratuitous services of the medical profession towards the poor generally."

DR. ROBERT LEE AND HIS DISCOVERIES.

[To the Editor of the Medical Times.]

SIR,—Dr. Robert Lee was an old class-fellow of mine at the College of Edinburgh, and I recollect those days with such pleasure that I have been at a loss to express the sorrow that I feel for the cause of the severe chastisement he has lately received from the Royal Society of the metropolis. At the time I speak of, Robert Lee was a student at our divinity class, and was intended to be a preacher of the gospel; and it was then the custom of many of our young ministers to attend a few of the medical classes, so that, in the event of their being placed in parishes where a doctor was not always at hand, they might lend their assistance until better advice could be obtained. At that time there were so many young men studying for the Kirk that they could not all soon expect employment; and I believe that Robert Lee was tempted from his sacred situation, and from having never been very earnest in his serious pursuits, to give up the Kirk, and to finish his medical studies, that he might try and earn a livelihood as a doctor. Since he left our college I cannot pretend to know anything of Robert's backslidings, excepting only what I have seen and heard of in the public prints. He has permitted a vainglorious ambition, I grieve to say, to overcome his better judgment, and has involved himself in all kinds of worldly broils and disputes which his pious early education should have guarded him against. But I do fervently pray that my old class-fellow will, for the future, "mend his ways," and that his conduct in making a rash and fruitless endeavour to mislead his professional brethren will be a useful and profitable lesson to all young men, and show them the danger and evils that befal us weak mortals whenever we dare to venture out of the straight path of truth.

Trusting that this letter will come under the cognizance of Robert Lee himself, through the pages of your useful and widely-circulated journal.

I remain, your humble servant,

PASTOR.

Dalkeith, near Edinburgh, Feb. 10.

LARYNGOTOMY. — DR. S. MERRIMAN'S COMMUNICATION TO MR. CORFE.

[To the Editor of the Medical Times.]

DEAR SIR,—I beg leave to forward you parts of several communications which Dr. S. Merriman has done me the honour to address lately to me, in corroboration of my report of the cases brought forward in my remarks on laryngotomy.

I am, dear Sir, yours faithfully,

Middlesex Hospital, Feb. 23. GEO. CORFE.

After expressing himself in very obliging terms on the subject of the papers now appearing in the *Medical Times*, Dr. Merriman goes on thus:—

"I have experienced much pleasure, as well as information, in reading the papers as they have successively appeared, and hope you will continue their publication for some time yet to come. On referring to the account I wrote down of the case at the time it occurred, I find that it differs in some respects from yours; I have, therefore, made an extract from it, thinking that you may be glad to have the particulars.

"Oct. 11. Removed into Green Room last night. Return of stridulous breathing, with increased severity; became delirious about three A.M., and comatose; at seven A.M. was covered with clammy sweat; at eight breathed about twice in a minute; pulse constantly intermitting; pupils closely contracted; quite insensible; countenance cadaverous. As no time was to be lost, a large trocar and canula were introduced through the crico-thyroid ligament, and the canula left in. A rush of air was heard to enter the lungs, and from that moment life took a new lease. I firmly believe that three minutes more would have closed the scene altogether. In about half an hour consciousness had returned, and she breathed easily through the tube."

"Elizabeth Slack, aged forty-six. Oct. 13, 1839. Ordered calomel, gr. v. ter in pulv.

15. Bowels reported purged; still breathes through the canula. To rub in blue ointment.

16. Mouth rather sore. Omit mercury.

19. Tube has been removed; opening remains patulous; cold air hurts her trachea, she says. Tube obliged to be again inserted at night. To resume the powders.

20. Bowels purged. Omit powders. Tube again withdrawn.

22. Can now breathe with ease through the larynx. Hydr. c. creta, gr. v. o.n.

24. Wound smaller in size; breathes easily, but makes a loud croupy noise during sleep; can be heard plainly by me in room underneath; can swallow solid food.

27. Rusty fluid expectorated; bowels much relaxed; gums slightly tender still. Pt. pulv. alt. nocte.

28. Hst. scillæ co. ter. pil. cupri sulph. c. opio j. 6tis; empl. lyttæ thoraci.

30. Ext. lactucæ, gr. x. o.n.

31. Expectoration still rusty, but not viscid; bowels quitted by the pills.

Nov. 1. Vini rubri, f. ℥ij.; inf. lini opiati, c. vin. ipecac., m. vj. 6tis.

2. Cough, &c., better; opening in larynx not yet healed.

12. Much better; feels herself hungry.

24. Aperture in larynx closed for about a week; still croups at night, but makes much less noise; more comfortable since aperture closed than before.

Jan. 22. Discharged. Still makes noise during sleep, but I can only hear it when I listen for it; lies flat in bed; rather short-breathed in damp weather, but health much improved.

Dec. 8, 1841. I have recently heard of her having come to the hospital some time after discharge quite well; no hoarseness or other complaint."

The same gentleman thus refers to another of our cases:—

"Sydney Easton, aged fifteen, chimney-sweep; Oct. 12, 1838; Dr. Wilson. Brought at night to hospital, breathing with great difficulty, and at each inspiration making a croupy sound; speaks in a whisper; has been affected in this way for eighteen months; says it came on suddenly during the night; has never been quite free from it since; always worse at night; prevents both himself and others in the room from sleeping; complains of pain in larynx on pressure and when he swallows. Ordered, bal. cal. and eight leeches. These relieved him, and the leeches were applied again on the 15th and 20th.

23. Breathing continues much the same. To take pil. hydr., gr. v., bis die.

Nov. 2. Pt. pil. ter die.

14. Mouth sore.

Dec. 1. Much the same. Surgeons consulted, who advised the larynx to be mopped daily by a solution of argenti nitrat., gr. x., in f. ℥j.; which was done at first once, and afterwards twice, daily, for about three weeks, with some relief at first, but not so much latterly.

14. Says his breathing is better, but he cannot speak so well; has been much troubled with cough and expectoration.

Jan. 14. Since last report two issues have been made, one on either side of larynx, without benefit; is at present much worse than he has been lately; tracheotomy performed.

16. Breathes easily through the tube; ate some bread and meat yesterday for the first time; looks and sleeps better.

26. Continues to breathe better; tube still in; spits a muco-purulent fluid; has wine, f. ℥ij."

I left the hospital on March 12, and soon afterwards heard of the death of this poor boy. In the *post-mortem* examination considerable ulcerations, I believe, were found in the trachea, and tubercles in the lungs.

I beg to sign myself yours, very faithfully,

S. WM. J. MERRIMAN.

34, Brook-street, Grosvenor-square.

GOSSIP OF THE WEEK.

WAR-OFFICE, Feb. 25.—40th Foot: Edward William Clemishaw Kingdom, M.D., to be Assist.-Surg., vice Brummell, promoted on the Staff.

THE WESTMINSTER HOSPITAL SCHOOL.—A meeting of the governors of the Westminster Hospital, numerously attended, was lately held for the purpose of considering a communication, signed by all the medical officers, except Mr. Hale Thomson, with reference to the establishment of a medical school, the former school being required for the purposes of the Westminster Improvement Commissioners. The Hon. P. P. Bouverie in the chair. It was resolved that it is highly expedient to establish a school in connection with the hospital, and the following gentlemen were appointed a committee to consider the matter and to report to a special meeting of the governors:—The Hon. P. Pleydell Bouverie, the Dean of Westminster, the Rectors of the parishes of St. Margaret and St. John, W. Whately, Esq. Q.C., Sir Thomas Phillips, Wm. Foreman, Esq., J. C. Wood, Esq., Mr. Alderman Johnson, and two of the medical officers to be chosen by their colleagues; those selected were Dr. H. Roe and Mr. B. Phillips. It is understood that the committee have very carefully considered the matter, and, with one exception (Mr. J. C. Wood), have agreed to a report recommending that permission be granted for the construction of the necessary buildings on the ground in the rear of the hospital. It is said that there is a party who will oppose that recommendation. So be it. But we can scarcely believe that the governors will seriously listen to them; and we, therefore, congratulate those of the medical officers who seek to place the hospital in the situation it ought to occupy, on the success which has attended their exertion. They have only to persevere in the same course, and they need not fear defeat.

MORTALITY TABLE.

For the Week ending Saturday, Feb. 26, 1848.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1145	1107
SPECIFIED CAUSES...	1143	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	308	184
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	38	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	129	138
Diseases of the Lungs, and of the other Organs of Respiration	203	225
Diseases of the Heart and Blood-vessels.....	34	39
Diseases of the Stomach, Liver, and other organs of Digestion	50	62
Diseases of the Kidneys, &c.	17	9
Childbirth, Diseases of the Uterus, &c	10	13
Rheumatism, Diseases of the Bones, Joints, &c. ...	4	8
Diseases of the Skin, Cellular Tissue, &c.	1	1
Old Age.....	40	79
Violence, Privation, Cold, and Intemperance.....	47	31

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☞ The subscription for the stamped edition of the *Medical Times* is 15s. for the half-year, and £1. 6s. for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfrae.

TO CORRESPONDENTS.

THE CHART.

In transmission of the Chart through the Post-office, the beauty of the lithograph is impaired, for the creases unavoidably made in folding a sheet of so large dimensions cannot be smoothed without danger of disturbing the colours. This detracts from the value of an engraving destined to a permanent and ornamental position in the study and the laboratory. We have, therefore, to announce to the annual subscribers on our roll, that we defer the delivery of the Chart through the Post-office, in order to afford to those gentlemen who have not received the Chart an opportunity of providing for its receipt, where possible, through their connections in town, or, when more convenient, their wholesale druggist. Where this suggestion is not acted upon we shall send the Chart with the next number by post.

*** To meet the convenience of gentlemen wishing to possess the Chart, all annual subscribers entered on our roll during the month of March will be entitled to a copy.

The Chart is also published separately, price half-a-guinea.

"A Subscriber" will find an answer in a former notice about the Chart.

"A Medical Officer."—Lord Ashley's resolutions will come on on Tuesday next. The Committee is paying the greatest attention to them.

"A Student" is thanked, but his offer is declined. Falsehoods from so infamous a quarter are neither unexpected nor unwelcome. They are the conclusive assurance of successful worth.

The letters of "W. B., an American Physician," and "Titus Oates," are not suited to us.

Mr. Hastings' letter to Lord Ashley contains the precise arguments which the Convention have pressed, and are pressing, on the attention of his lordship. It will, therefore, be unnecessary to publish it.

"Amicus" has our best thanks. "Fais ce que dois, arrive que pourra."

"A Licentiate of 1835" writes, in reference to the arrangement which has been entered into by the two Colleges and the Apothecaries' Company for the settlement of Medical Reform—"I have long been anxious that something should be done, that the different branches of the profession may be united and consolidated. There has been, however, a marked disposition in the pure physicians and surgeons to depreciate the talents and usefulness of the general practitioners; and they must, therefore, be vigilant to prevent the question of Reform being settled to their disadvantage. I am a licentiate only—though I have received a regular surgical education—and I am anxious that those who, like myself, possess only the certificate, should not be placed in a less honourable posit on than that which we now occupy. As general practitioners, we are sanctioned and protected by the law, and we have an advantage over those who only possess the College diploma. Our privileges can only be quietly resigned for the benefit of the whole, by being permitted to hold the same privileges in the new College as any other member. It behoves the Company to look to their licentiates, or the latter to be ready to assert their rights immediately, if any attempts should be made to act unjustly towards them."

"Nemo."—We believe that a charter for the new College is in preparation. The registration of the members of the profession is not, as in Wakley's bill, to be a yearly tax, as all persons who wish to continue their names on the register have only to send their names and residences to the council, without the payment of additional fees.

"Cerberus."—We cannot insert the strictures on Lord Morpeth's Sanitary Bill, as they are written in a too censorious spirit. It is an imperfect measure, but contains many good points. We agree with our correspondent's remarks on the window-tax, "that it is injurious to the health, morals, and happiness of the poorer classes of society.

"Medicus."—The charter of the London College of Physicians is of little value. Time has rendered many of its claims obsolete, and disarmed others of the terrors they once possessed. We are not aware that the officers of the College ever made many attempts to suppress quackery amongst the members.

"A General Practitioner, Mile-end," informs us that he has received a circular from the new Association for the Suppression of Quackery, and wishes us to communicate our opinion upon its merits privately, to an address forwarded. We cannot accede to his request, and we have already stated that, if the officers of the association wisely manage its funds, the profession may be benefited by its establishment.

"A Lover of Justice."—The curricula of the various licensing medical corporations in the United Kingdom differ considerably. Under a new order of things this defect will be remedied. We are not disposed at present to draw a comparison between the Scottish and English systems of education.

"A Young Member of the Profession."—We think that his petition would be favourably received at the East India-house. The expense of passage would be about a hundred pounds. As regards the outfit, much will depend on taste and discretion.

"F.R.S."—We know of no scientific explanation of the phenomena.

"Omicron."—The communication cannot, at present be published.

"M. Green."—The oxide is not affected, but facilitates the decomposition of the chlorate.

"Lady Douglas, 5, Stopford-terrace, St. Helier's, Jersey."—The request shall be attended to.

"Hamlet."—Through a bookseller.

"An Old Surgeon."—Dr. Simpson still maintains his opinion that the girl Greener's death was produced by the brandy and water. Some one must have misinformed our correspondent

"M.D., Ch."—A physician. The fees are not recoverable by law. Our correspondent, practising as such with a proper qualification, must forego the loss of the ten guineas as the patient refuses to pay.

"E. L." asks "Messrs. Simpson, Fife, Meggison, Snow, &c., to what cause they attribute the death of the shop-boy who took the vapour from mere gratification; and the death of the guinea-pig at the Royal Institution?"

"M.D., Dublin."—We do not see that the establishment of a republic in France will affect the medical profession there. It will still occupy the same position in reference to the present Government as it did to the former one.

"An English Surgeon."—The fee for the diploma of the Royal College of Surgeons, Ireland, is £31. 10s., and a licentiate of three years' standing is admissible as a member by ballot when he becomes possessed of corporate rights. The education of fellows differs from that of the licentiates; but the latter, at the expiration of ten years, may be admitted to the examination on furnishing evidence satisfactory to the council that they have conducted themselves honourably in the practice of their profession.

"J. M."—We know not of a good opening in the metropolis for a young medical man.

"Dr. Marshall."—The copy shall be forwarded as requested.

"Galen."—The liquor anodynus mineralis of Hoffman is similar to the compound spirit of sulphuric ether of the London Pharmacopœia.

"Leonard G., Cardiff."—The preparation, if genuine, is not dissolved by water, unless mixed with an acid, but readily dissolved by alcohol. It alters the colour of turmeric, has a bitter taste, and is totally destroyed by heat.

"Be a."—The office cannot be held without the double qualification.

"Mr. Pinkstone" is thanked for the parcel forwarded. We noticed a week or two since, in the column for Correspondents, the circumstances referred to.

"A West-end Subscriber."—Testimonials would be necessary.

"A Three Years' Student, Bartholomew's."—A provision would be made in any new law to meet particular cases. The certificates will do.

"M. F. F."—We cannot give the information sought.

"Alpha" has been duped. The persons are impostors, and old hands in their work.

"Lector."—Chelius is a valuable author.

"John Simple."—We do not know why the article is retained in the materia medica. It is more useful to the cook than the doctor.

"A Dublin Subscriber"—The colleges will not be able to do as they please if the present arrangement should be made a law, as it is contemplated, to empower the council to disallow any new by-law which may be made.

"Pater."—The sum mentioned would not be sufficient to complete the medical education of a youth. Twice the amount would be required.

"Medico-Chirurgus."—The virtues of creasote have been too highly exalted. It was discovered by Reichenbach in 1830.

"Mr. Edmonson."—The papers on Sanitary Reform have been received.

"Leech."—The medical galvanist professes more than he can accomplish. It would surprise us if such advertisements were to mislead a member of the profession.

"Felix."—The reviewer was correct on the point referred to.

"Truth-seeker."—The secretary of the College of Surgeons will, on application, furnish the information required.

"Carolus."—The fee cannot be recovered at law.

"Mr. R. L. Sprague."—The trial came too late for insertion in the current number.

Mr. James Baker, 1, Dorchester-place, New North-road."—The petition against the income-tax is received.

"A Subscriber."—A physician possessing an Edinburgh, Glasgow, or Dublin diploma cannot *legally* practise in London. The College of Physicians, however, would not dare to prosecute.

"Mr. Kay, Royal Marine Barracks."—Communication received.

"Mr. W. A. Close, Manchester."—Mr. Goodman's case shall be inserted when the papers are complete.

"Dr. George Johnson, King's College."—The promised communication will not be acceptable.

"A Well-wisher."—The copies shall be forwarded according to request.

"Mr. Henry Butler, Westminster Hospital," is thanked for his communication.

"Dr. Clay, Manchester."—The paper on the "Removal of a large Steatomatous Tumour" has been received.

"A Botanist and Subscriber."—The master of the Apothecaries' Company will grant admission to the society's gardens, at Chelsea, on application.

"E. L. asks the following question?"—"A. B. is a M.R.C.S. of London. He has an Aberdeen, or a St. Andrew's, or a foreign diploma of M.D. (He is a non-resident fellow of the Royal College of Physicians, Edinburgh, *perhaps*, as well). He practices as a *general practitioner*. How will he register? Can he register as an M.D., and continue a general practitioner? If so, and he calls himself Doctor, can he recover in law? If he be a licentiate of the Apothecaries' also, will that alter the case?"

"Mr. T. M. Greenhow, Newcastle-upon-Tyne."—Petition received.

"A Constant Reader."—The lectures and hospital practice must be attended in the order required by the Apothecaries' Company and College of Surgeons. The regulations may be obtained on application to either of the secretaries.

We are compelled to postpone the publication of Dr. Gavin Milroy's letter, from a press of matter.

"Mr. Thomas Rudd, Enniscorthy."—We will endeavour to gratify our correspondent at an early opportunity.

"A Licentiate."—We think they will be entitled.

"Mr. G. H. Jenkins, Cardiff."—We regret professional differences, but the medical gentleman who received the fee is bound to divide it, if the circumstances are as stated.

"A Fourth Year Pupil."—We can give no specific advice.

"Medicus" "would be glad to know if, in the event of the Medical Bill becoming the law of the land this session, of which he is doubtful, if those parties, who have practised for a number of years under the cognomen of surgeons, be obliged to take their names off their doors; or will the act, as in the palmy days of 1815, possess a saving clause in favour of those parties who have for many years been engaged in the practice of surgery, medicine, and midwifery, but who possess no diploma—only a certificate, and will such be able to register under the new bill?"

"W. H. R." writes us:—"In reading over the proposed plan of Medical Reform contained in the *Medical Times* of last week, I perceive there is no allusion made in reference to apothecaries, as to the title they are to hold under the proposed charter. Will you be kind enough to say in your notices to correspondents whether or not it is intended that apothecaries not members of the College of Surgeons, and surgeons not members of the Apothecaries' Society, shall be registered as members of the Royal College of General Practitioners, and obtain equal privileges with those who have the double qualification? This seems to me an important point, and involves a principle for which the National Association have contended from the beginning. I wish to be clear upon the subject myself, as there seems to be provision made in the registry for members of the College of Surgeons, but no allusion whatever to the licentiates of the Apothecaries' Society." [We think both parties are entitled to register as members of the Royal College of General Practitioners.]

Letters and communications have also been received from A Subscriber; A Medical Officer; A Student; Amicus; A Licentiate of 1835; Nemo; Cerberus; Medicus; A General Practitioner, Mile-end; A Lover of Justice; A Young Member of the Profession; F. R. S.; Omicron; M. Green; Lady Douglas, 5, Stopford-terrace, St. Helier's, Jersey; Hamlet; An Old Surgeon; M. D., Ch.; E. L.; M. D., Dublin; An English Surgeon; J. M.; Dr. Marshall; Galen; Leonard G., Cardiff; Beta; Mr. Pinkstone; A West-end Subscriber; A Three Years' Student, Bartholomew's; M. F. F.; Alpha; Lector; John Simple; A Dublin Subscriber; Pater; Medico-Chirurgus; Mr. Edmonson; Leech; Felix; Truth-seeker; Carolus; Mr. R. L. Sprague; Mr. James Baker, 1, Dorchester-place, New North-road; A Subscriber; Mr. Kay, Royal Marine Barracks; Mr. W. A. Close, Manchester; Dr. George Johnson, King's College; A Well-wisher; Mr. Henry Butler, Westminster Hospital; Dr. Clay, Manchester; A Botanist and Subscriber; E. L.; Mr. T. M. Greenhow, Newcastle-upon-Tyne; A Constant Reader; Mr. Thos. Rudd, Enniscorthy; A Licentiate; Mr. G. H. Jenkins, Cardiff; A Fourth Year Pupil; Mr Gibson, Ulverstone; Mr. Stanley, Runcorne; Mr. Hore, Shoreham; Mr. Chepmell; Mr. Boyd, Dromore; Mr. Ashwin, Abergavenny; Mr. Browse, Paignton; Mr. Rutherfurd, Channelkirk; Mr. Dougan, Glasgow; Mr. Ransom, Cambridge; Mr. Blythman, Swinton; Dr. Edmundson, Carrick-on-Suir; Mr. Davies, Ponty Pridd; Dr. M'Carthy, Bantry; Mr. Brown, Norwich; Mr. Robinson, Newbury; Dr. Farrar, Bradford; Mr. Wraith, Darwen; Mr. Williams, Manchester; Mr. Burges, Fetnard Tip; Mr. Lacey, Poole; Mr. Elliott, Kingsbridge; Dr. Peppard, Pallas Kenry; Dr. Stokes, Cahir; Mr. Haslehurst, Cleverley; Mr. Harrison, Braintree; Mr. Price, Glantaraeh Mr. Jolliffe, Crewkerne; Mr. Jones, Chesterfield; Mr. Croome, Middleton; Mr. Salt, Rugeley; &c.

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No. 441. SUMMARY. March 11.

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ORIGINAL LECTURES.

LECTURES ON SOME OF THE MORE IMPORTANT POINTS IN SURGERY.

By G. J. GUTHRIE, Esq., F.R.S.,
Read by Mr. HANCOCK, Surgeon to the Charing-cross Hospital, and Lecturer on Anatomy and Physiology at the Royal Westminster Ophthalmic Hospital.

Lecture VI.

ON WOUNDS AND INJURIES OF THE CHEST.

Dr. Maclean's cases of empyema; conclusions respecting the operation of paracentesis thoracis; Dr. Edward Barry's operation for puncturing abscess of the lung; performed successfully by Mr. Tuchy; revived by Dr. Hastings; Sir Henry Marsh's case; pneumo-thorax; symptoms and consequences of pneumo-thorax; signs by succession and percussion; tintement metallique; Mr. Kelly, of Leith, the first person who operated for pneumo-thorax; Dr. Davy's case; case of Mr. Cornish; Dr. Roe's case, reported by Dr. F. Bird; case of Lord Beaumont; Dr. Houghton's opinion respecting the cause of the tintement metallique in pneumo-thorax; the operation only palliative when the pneumo-thorax is caused by a tubercular abscess; curative when it has been induced by a local injury.

I am indebted to Dr. French, the deputy inspector-general of hospitals at Chatham, for the three following cases treated there, by Dr. Maclean, staff-surgeon. They are highly creditable to the ability of Dr. Maclean, and show the care and attention which is taken of sick soldiers, when not too numerous for the doctors employed. The last case is particularly interesting from the manner of recovery.

Case 22.—Private Patrick Kenny, aged nineteen years, 86th Regiment, admitted 12th of April, 1847, with pleuritis.

Had been ailing for several days previously to his admission; complained chiefly of general febrile symptoms, and of pain on the left side of the chest. The following day he was bled freely from the arm, with immediate relief. This treatment was followed up with a full dose of calomel, antimony, and opium. He passed a good night, but in the morning the pain in the side returned, situated under the left mamma, and extending backwards to the subscapular region.

On the third day of his admission, acute pleuritis was for the first time diagnosed, and was treated accordingly, with general bleeding, calomel, antimony, opium, and counter-irritants. Up to the 1st of May he had been twice bled from the arm, which was followed with marked relief. On the 3rd of May he is reported free from all pain; breathing easy and natural; general appearance healthy.

He continued in a convalescent state until the 8th of the same month, when he had a return of all his former symptoms, with frequent cough. Percussion elicited a clear normal sound on the right side, and, on the ear being applied, the respiratory murmur was distinct and louder than natural. On the left side, in the sub-clavicular region, it was also clear; but beneath this, and extending downwards and backwards, there existed a decided dulness on percussion; and on applying the ear to the stethoscope, the respiratory murmur was heard as if from a distance. The dulness extended towards the mammary and sub-axillary regions, and round towards the posterior parts, as far down as the tenth rib. His general health became considerably affected by frequent attacks of diarrhœa, which continued for some time, with occasional relief from the exhibition of the different remedies. From this period, however, the pleuritic effusion of the left side became every day more distinct; although he complained very little of either pain or cough, yet his breathing was becoming more hurried, and his recovery more hopeless.

On the 15th of May, the operation of paracentesis thoracis was proposed to the patient, but he would not consent to it. He continued, therefore, from the above period, to be gradually losing ground; but, being free from pain, he fancied himself getting better. In the mean time, wine and generous diet were given, with the view of supporting his strength.

On the afternoon of the 10th of June, he became so ill that he sent for me, and said he was willing to submit to the operation. Accordingly, after satisfying myself first that the right lung and pleura were still in a healthy state, and feeling assured of the collection of a considerable quantity of pus, I introduced a large trocar and canula between the eighth and ninth ribs, at the posterior angle, drawing the skin forcibly upwards, in order to made the opening valvular; and immediately on removing the trocar a full stream of laudable pus, of a cream-colour, issued from the canula, flowing in jets corresponding to the contractions of the chest. Of this fluid fourteen ounces were withdrawn, when it was thought advisable to close the opening, and apply a light bandage. The patient bore the operation well, and expressed himself greatly relieved. The breathing became more free and easy, and the natural expression of his countenance returned. The pulse increased in strength and fulness, and he passed a better night than he had done for many weeks.

On the 17th, the side was again opened, and thirty-two ounces of pure pus withdrawn, with increased relief. The wound was treated as before, and allowed to heal by the first intention. The diarrhœa now entirely ceased; his bowels became regular, and appetite much better; breathing easy; pulse 90, and easily felt; tongue clean and moist.

18. Passed a good night; no cough or expectoration; says he feels easy and comfortable; breathing natural; bowels regular; asked for a piece of beafsteak for breakfast, which he ate with a relish; urine clear and natural. For the first time since the operation an examination of his chest was made—the left side still remained dull, though in a less degree. On applying the stethoscope to the chest a loud amphoric sound was distinctly heard; no gurgling accompanied this sound, and it was, therefore, supposed to arise from a small opening from the bronchial tubes, into the pleural cavity, above the level of the fluid.

19. Continues to improve in every respect. In the evening, his breathing was observed to be somewhat hurried; the side was again opened, and eight ounces of thick pus evacuated, after which he appeared much relieved, and passed a good night.

20. Appears easy, and much stronger. On the bandage being removed from the wound, and a director introduced, no pus flowed; half an ounce of castor-oil was given, and in the evening twenty-five drops of sol. mur. morph.

21. Slept well; countenance expressive of ease and cheerfulness; breathing easy; appetite good; bowels open; pulse 86, of better strength.—Vespere: not so well; breathing rather hurried. The chest was again opened, and one pint of pus taken away, with the most marked relief.

22. Passed a good night, and looks well; has taken his breakfast with relish, consisting of coffee, bread and butter, with two eggs; no pus withdrawn to-day.

23. Looks very well, and slept well during the night; but his bowels are rather free, having acted four times before breakfast. Hab. tinct. opii, m. x., tinct. catechu, ʒj.—Vespere: has been sleeping a good deal all day, but still his appetite and spirits continued good, and his general appearance much improved. At eight o'clock he said he felt hungry, and asked one of his comrades to boil him an egg; on his coming back with it boiled, the patient was dead.

Sectio Cadaveris, horas viginti quatuor post-mortem.—*Head.* Brain and investing membranes healthy.—*Thorax.* The right lung presented throughout the appearance of general acute bronchitis; pleura healthy. The left lung was firmly bound to the walls of the chest, at the apex and lower half, by recent thick adhesions; the substance of the lung was compressed to about half its normal size, but remained throughout permeable by air; the pleura was much thickened throughout, by a layer of coagulable lymph, covered with purulent matter, and formed by the adhesions at the lower border and apex, a large cavity containing pus; at the lower part of this cavity the opening existed through which the fluid was evacuated; the heart was slightly enlarged, but otherwise healthy; the liver, and other abdominal viscera, quite healthy.

Case 23.—Private Michael Donohoe, 29th Regiment, aged eighteen years, admitted 13th of June, 1847, with pleuritis.

The general febrile symptoms appear soon to have given way, under the exhibition of sol. antimonii tart. and saline purgatives, and the pain of the left side appears to have been successfully treated, by the application of a few leeches and a blister. The patient is reported to have been going on favourably up to the 10th of July, 1847; on which day he is stated to have contracted a slight catarrhal affection, accompanied with diarrhœa.

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Upon the 12th of August, 1847, I found the patient suffering from constant diarrhœa, with watery, slimy evacuations, loss of appetite, and general debility. He complained of slight tickling cough, accompanied with scanty seromucous expectoration; pulse 120, weak and irregular; breathing observed to be short and hurried. Said he felt acute pain on the top of the left shoulder, and a sensation of great weight over the precordial region; no pain of left side.

On examination of his chest, found extensive and complete dulness of left side, commencing from the sub-clavicular region, as far down as the ninth rib, which continued round posteriorly, to within a short distance of the spinal column. On the application of the stethoscope over the same space, the respiratory murmur could not be heard, and was only slightly audible in a small space, in the subscapular region, where it was accompanied with loud bronchial respiration. The heart's sound and impulse were very obscure over the precordial region, but were heard and felt distinctly on the right side; the entire left side appeared bulged out, and was so œdematous that it was with great difficulty the ribs could be felt or defined; and between the scapulæ ægophony was distinctly heard, but no sound on succussion could be elicited, which was supposed to be owing to the pleural cavity of the affected side being filled with pus; the right lung and pleura appeared healthy; respiration puerile.

On the 13th of August, the operation of paracentesis thoracis was performed between the seventh and eighth ribs, and forty ounces of healthy creamy pus flowed through the canula in eight minutes; it was then withdrawn, and the wound closed. The patient expressed himself greatly relieved by it. His pulse fell from 130 to 96; his breathing became more free and easy, with complete relief to the pain of his left shoulder. No medicine. Was ordered to have two gills of wine during the day, and beaf-tea.

14. Has passed a good night, and slept well, without any anodyne draught; bowels once moved since the operation; breathing easy and natural; no pain or discharge from the side, the œdema of which is greatly diminished; pulse 90, soft and regular.

15. Slept well; breathing easy; countenance cheerful; appetite improving; great dulness still on percussion. The trocar and canula were inserted between the eighth and ninth ribs, and two pints of healthy-looking pus withdrawn. The patient expressed himself much relieved of the oppression at his heart, and the pain of the shoulder; pulse 94, weak.

16. Passed a good night; breathing easy; bowels regular; appetite good; and the dulness on percussion is much less; but the respiratory murmur is only heard in the sub-scapular and dorsal regions. Was ordered to take a draught, composed of the infusion of gentian, with the sesquichloride of iron twice a day, and a mutton chop in place of the beaf-tea, with two gills of wine.

From the above date to the 20th of September, 1847, he continued to make considerable progress in his general health and appearance, notwithstanding that, from time to time, large quantities of pus were withdrawn, according as his breathing was affected, and the dulness on percussion was increased.

On the 21st of September, a sudden change took place in the weather, from very fine and dry to cold and wet; and without any other apparent cause the patient was attacked with acute bronchitis of the right lung. At this time the left side was clear on percussion, and slightly tympanitic; and the respiratory murmur was heard over a larger space posteriorly. His breathing easy and natural; appetite good, and bowels regular; pulse 90, of moderate strength.

From this period the patient became rapidly worse, and, notwithstanding the means employed to [illegible] the bronchial affection of the right lung, it still continued, and brought the case to a [illegible] termination upon the 27th of September, 1847. The quantity of pus taken away altogether measured twenty-four pints three ounces.

Sectio Cadaveris, horas viginti quatuor post-mortem.—*Thorax.* On removing the skin and attenuated fibre from the left side of the thorax, the sterno-clavicular articulation was found loosened and partially dislocated; the edge of the fifth rib was ulcerated, and the cartilage of the third rib was separated from the rib itself by ulceration; the left lung was found about the size of a large spleen, bound down and compressed against the spinal column; its structure healthy and permeable by air. The pleura was covered with a thick layer of lymph throughout, and its cavity contained eight ounces of pus; right lung slightly bronchitic, otherwise healthy; pleura also healthy. The heart was found pushed to the *right*, otherwise healthy. The abdominal viscera were all found in a natural condition, with the exception of the caput coli, which showed marks of inflammation and slight ulceration.

Case 24.—Private Michael Quinlan, 94th Regiment, admitted 29th of April, 1847, with fever.

The febrile attack was of a severe character, principally affecting the brain, which became so far excited that for several days he was in a state of high delirium, and was placed under antiphlogistic treatment, with a free application of leeches to the head. The urgent symptoms were subdued, when, after an imprudent exposure, he was attacked on the 5th of June, 1847, with well-marked pleuritis of the right side, being, at the time, in a debilitated state from the effects of his late attack of fever. The treatment was confined to local depletion and counter-irritants, which removed the acute symptoms, but were followed by those of a chronic character, attended with marked deterioration of the patient's general health and appearance. He complained of frequent cough, especially in the morning before getting up, with a free expectoration of a seromucous character.

On examination with the stethoscope, the vesicular murmur could only be heard in a very indistinct manner, and on percussion over the same space the sound was perfectly dull, with increased resonance of the voice. The *left* lung and pleura appeared quite healthy, but the action of the heart was somewhat increased, and its impetus could be felt over a much larger space than is usually found in the healthy state.

He continued getting worse up to the 17th of August following, during which time there did not appear much change in the physical signs, as described above. Both sides were measured, but only the slightest possible increase could be detected in the right. The only part of the affected side where the respiratory murmur could be heard was a small space between the dorsal and sub-scapular regions. The patient, feeling conscious of his sinking state, consented, after much persuasion, to the operation which he had hitherto always declined, and a large trocar and canula were introduced at the posterior angle, between the eighth and ninth ribs, drawing the skin forcibly upwards to make the opening valvular, when a quantity of fetid thick pus was withdrawn, which came away with difficulty. The patient experienced the most marked relief in his breathing; which, before the operation, amounted to orthopnœa. He bore the operation well, and said he scarcely felt it. His pulse fell from 120 to 90, and increased in strength; sol. mur. morph. m. xxv., h.s. He passed a good night, but awoke suddenly, about five o'clock the following morning, with a sense of suffocation, which terminated in a fit of coughing, when suddenly a large quantity of thick pus flowed out of his mouth, which on being measured exceeded four pints. The relief the patient experienced surprised himself and everybody else. His breathing became easy and natural; pulse 90, and of moderate strength; bowels open and regular. The following morning the bandage was removed from the wound in the side, but no appearance of any discharge showed itself. On examination with the stethoscope, loud amphoric breathing was now heard over the right mammary region, and the respiratory murmur was audible over a larger space than before the operation. He said he had little or no pain in his chest, with hardly any cough. Two ounces of the infusion of gentian, with the sesquichloride of iron, were given twice a day, and, according as his appetite increased, a liberal diet with a little wine was allowed. On the three following days after the operation, a small quantity of pus was visible with his sputa, which afterwards disappeared. The respiratory murmur over the affected side gradually extended itself from above downwards, with less dulness on percussion. The amphoric breathing remained distinct for many weeks, without apparently affecting the progress in his general health, which continued to improve during the whole time he remained in hospital.

He was discharged to duty upon the 8th of November, 1847, on which day the following remarks were made:—"Appears in perfect health, and since the 1st of October has expressed himself entirely free from pain, weakness, or inconvenience. On examination of his chest, there is a considerable amount of dulness on percussion over the lower and anterior portion of the right lung, and over the same space the vesicular murmur is only indistinctly heard. Left lung healthy, but the respiratory murmur slightly puerile; heart's impulse somewhat increased; pulse 86, soft, and natural; bowels open; tongue clean and moist; general appearance perfectly healthy and natural; limbs muscular."

He has, since the above period, continued performing his drill and duties as a soldier, and on the 15th of January, 1848, when last seen, he said he was quite well, and never felt better in his life.

A. Maclean, M.D., staff-surgeon 2nd class:—

"I have been acquainted with a gentleman for five and twenty years, whose lungs have been declared during that time, by French, English, and Italian stethoscopists, to be reduced to nearly nothing, who, independently of an ordinary cough and muco-purulent expectoration, suffered from a more or less acute attack occasionally, which ended in his spitting up in a similar manner half a wash-hand basonful of pure pus. This I have seen and known him do several times, and his life was in all probability preserved by an opening taking place from the lung into the cavity of the pleura containing pus; after the evacuation of which, each time, he rapidly recovered, contrary to all expectation. He has been in Ireland for the last six or eight years."

It may be concluded, from the foregoing observations, that in cases of paracentesis thoracis, for a medical disease, the operation for the removal of the fluid effused should be done early, before the lung is permanently compressed and bound down by the formation of false membranes to the spinal column; that the operation should be a puncture between the fifth and sixth or sixth and seventh ribs, made by a very small trocar and canula, and the whole of the fluid should be evacuated, unless there be reason to believe its sudden removal might deprive the heart and great vessels of a degree of support necessary for their safety. The puncture should be immediately closed, and the admission of air may be prevented as much as possible, even if it should do no harm, although a time may arrive in which, after future operations, particularly if the discharge becomes purulent, it will be desirable to enlarge the small wound thus made, and keep it open. In a surgical empyema, the operation done is often that which has been called "by necessity," or at the spot where the opening into the chest originally was, or the matter now protrudes. When an operation is necessary, in consequence of a foreign substance being contained in the chest, which it is desirable to remove, in opposition to the more simple case of serous or sanguineous effusion, it should be done by incision, at the lower part of the chest behind, and requires the particular consideration which will be given to it in a future lecture.

(To be concluded in our next Number.)

NEWSPAPER
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LECTURES ON GENERAL PATHOLOGY

DELIVERED TO THE

FACULTY OF MEDICINE

DURING THE PRESENT YEAR,

By PROFESSOR ANDRAL.

Reported for the *Medical Times* by D. M'CARTHY, M.D. Paris, &c.

SECOND SERIES. CHAPTER VIII.

CONVULSIONS AND PAIN.

Muscular action may not only be abolished, it may also be perverted; convulsions are constituted by involuntary and violent alternancies of contraction or relaxation of the muscles of the body, whether permanent or transitory.

Convulsions may be accompanied by loss of consciousness; they may exist alone, or be attended with other symptoms. We now consider them as solitary expressions of disease. In childhood they are observed as maladies, are brought on by trifling causes, and often leave no antomical alterations in the organs; but in the adult they are symptomatic of various disorders, result from considerable general disturbance, and usually leave evident anatomical changes to account for their production. The predisposing causes of convulsions are numerous. Thus a great volume of the head, increased irritability of the nervous system, a fair complexion, disturbed sleep, previous ill health, are considered as such in infancy. Also acute diseases, great mental emotions, instinctive imitation, hereditary predisposition said to be handed down from hysterical mothers to their children—possibly emotions experienced during gestation—may influence the production of convulsions in the child. Diseases of the encephalon, meningitis, morbid productions within the brain, acute encephalitis, must be taken into account, particularly in childhood. The causes of convulsion should be sought for elsewhere: various disturbances occasioned by the evolution of the teeth, gastro-intestinal inflammation, the debility which follows chronic enteritis, foreign bodies in the intestines, *e.g.*, retention of fæcal matter, worms, &c., may also produce them. Feverishness alone does not cause convulsions in the adult, but is frequently their origin in the child; one form of pernicious intermittent fever is marked by their presence, a plethoric state; and also, perhaps more frequently in the adult, anemia, excessive hemorrhage—for instance after parturition—syncope, must all be ranked amongst the causes of the symptom which now engages our attention. Some poisons, such as saturnine emanations, also occasion them; ergotism not only occasions gangrene and inflammation of the gastro-intestinal tube, but sometimes also a convulsive form of disease, which the progress of public hygiene now-a-days renders more rare. Convulsions have followed transfusion of blood, and are said to result in some children from the peculiar qualities of the milk of their nurses (Brachet and Sumner). Excessively abundant secretions, too rapid growth, irritation of the skin—such as that produced by pins incautiously placed in the swaddling-clothes of infants—the influence of cold, are counted amongst the predisposing causes of convulsion. This symptom ranks amongst the most serious which may appear during the first stage of eruptive fevers, and is still more important when it follows the disappearance of the eruption, usually denoting at that period internal inflammation. With regard to the organs of generation, we find many of their diseases amongst the causes of convulsions; for instance, dysmenorrhœa, the difficult establishment of the menstrual functions, the accidental suppression of the catamenia; in hysteria they are frequent, onanism may bring them on, and they are occasionally met with during pregnancy and after parturition.

Motion may be perverted in a different manner: morbid muscular contractions may be permanent, as in tetanus. In this disease we cannot possibly admit the constant existence of alterations in the nervous centres, although they coincide sometimes with the malady. In some climates wounds of the skin cause frequently tetanus, and a congested state of the nerves and neurilemma in the vicinity of the wound is certainly not a constant appearance. The spinal chord, also, has been found diseased; but the tetanus in such cases was the result, not the cause, of the alteration. Some muscles may be affected with permanent contraction, hence a change of form or of position of the part may arise. Muscular contraction may also be a sign of cerebral or spinal softening, but never of mere hemorrhage. In hysteria it is not uncommon to notice a partial contraction in various parts of the body; it appears and ceases suddenly, or returns without any apparent cause, imitating shortening of a limb, or spinal deformity, and exists only in certain positions. The contracted parts may be swollen and painful. We have seen this symptom last as long as eight months; we have never noticed it in the male sex, nor in women over forty or under twelve years of age. Another form of convulsion which you are well acquainted with is hiccough.

We now come to the consideration of another sign of the maladies of the nervous system, viz., pain. Pain varies in intensity, in nature, and in seat: let us examine it under these three aspects. With regard to its intensity, we find that the nature of diseased tissues exercises a considerable influence. Compare, in this respect, the pain of inflammation in serous or in mucous membranes. The peculiar form of disease also modifies the violence of pain. Inflammation is usually accompanied with great suffering, particularly when any constriction exists in the diseased part. Neurosis is often unattended with pain; neuralgia, on the contrary, is always very painful. In acute disease more pain exists than in chronic affections: in advanced age, and in the male sex, less suffering is usually complained of during the course of maladies than in youth and in women. Weak subjects and nervous temperaments are peculiarly subject to pain; and in this respect idiosyncrasy creates a considerable difference between individuals. With regard to the nature of pain, it is sometimes comparable to a sense of weight; in other cases it is attended with throbbing, as in some inflammations, and also in hypochondriasis and hysteria. Lancinating pains are usually referred to cancer, although they seldom accompany visceral cancer. Pain varies in its seat; it may occupy an organ or a nerve. In neuralgia, for instance, the entire course of a nerve is the seat of a constant and dull sensation of numbness, whilst some peculiar spots are the nuclei from which irradiate from time to time violent lancinating pains. In sciatica, patients often complain of a distressing sensation of cold about the foot and leg, and in such cases the application of the thermometer has demonstrated to us the positive diminution of the temperature of the limb. Pains may be fixed or movable, continuous or with paroxysms; they may be intermittent or occur only at night, as it frequently, but not exclusively, happens in syphilis.

Pain must now be examined in the various regions of the body as a sign and a symptom of their diseases. In the head, pain may occupy the cranium or the face. Pain of the cranium may be general or partial, being limited to the frontal, temporal, or occipital regions. Headache may be indicative of disease of the skull or brain, or be symptomatic of maladies seated elsewhere. Pain may be observed on pressure of the scalp in many cases. In the same region a neuralgia is noticed, as in hemicrania and clavus hystericus. The cervico-occipital region is frequently occupied by neuralgia. The dull, permanent pain in this neuralgia chiefly exists in three points, viz., at the point of emergence of the occipital nerve, below the mastoid process; in the space which separates the anterior edge of the trapezius muscle, and the posterior margin of the sterno-cleido-mastoid; and on the parietal prominence. The entire lobe of the ear is sometimes painful, and the suffering may spread to the eye, face, and meatus auditorius externus; it has been even propagated to the shoulder and arm. Headache may point to disease of the bones of the skull; in acute meningitis intense headache is one of the earliest symptoms. When tubercular deposits exist in the membranes, pain is complained of long before any other symptoms; during the progress of acute inflammation, infants manifest their suffering by a special cry, and by raising their hand towards the painful region. Congestion of the brain, and hemorrhage, are not usually attended with pain: in softening, pain is usually observed in the neighbourhood of the diseased part of the cerebrum. Headache may, we have said, be produced by maladies which do not primarily affect the head. Thus in feverishness, particularly in that which attends pyrexia, it is almost constant. Thus, in the incipient stage of smallpox and of typhoid fever, headache is one of the most prominent symptoms. Disturbances, even slight, of the gastric functions cause headache. Pains of the face usually occupy the branches of the fifth pair, and seldom both sides together. The inferior maxillary branch and its divisions is that which is most subject to neuralgia.

Pains in the body may be observed in several regions; in the spine, for instance, whether caused by maladies of the envelopes or of the substance of the medulla spinalis, spinal meningitis more frequently occasions suffering than myelitis. Pain on pressure or motion is also commonly met with on the sides of the spinous prominences, and sometimes at the same time is accompanied by suffering along the course of the spinal nerves in the neck, chest, or abdomen. This pain and spinal tenderness seem connected with neuralgia (Valleix). Dorso-intercostal neuralgia is more frequent on the left than on the right side, and is chiefly noticed in the fifth, seventh, eighth, and ninth intercostal spaces. Although a dull sense of numbness exists throughout the course of the affected nerves, the patients complain chiefly of one painful spot in the vicinity of the sternum, of another at the bral column, and of a third on the course of a line extending from the centre of the axilla to the crista ilii. In some subjects the pain spreads to the epigastrium, or extends to the arm, fore-arm, and fingers. Concomitant oppression and palpitations may induce the erroneous belief in a disease of the heart or lungs, which do, however, predispose to this form of neuralgia. Dr. Bassereau considers intercostal neuralgia as invariably connected with a morbid state of the uterus; an opinion which we do not by any means adopt. This disease is more frequent in women; it may last a long time, and baffle the skill of the medical practitioner. We are disposed to admit that angina pectoris and this dorso-intercostal neuralgia are one and the same malady. It may accompany disease of the heart or of the aorta, and in general we must say that the name of angina pectoris has been imposed upon a great variety of very different affections. Muscular rheumatism is observed also in the thoracic walls. As to the pains which accompany internal thoracic disease, we have described them when treating of maladies of the respiratory organs and those of the circulation.

The abdomen may be the seat of pains of various natures. The walls, being of a muscular texture, are occasionally invaded by a very distressing sort of rheumatism. Phlegmonous inflammation of the parietes also occasions pain, and this symptom is often met with in incipient spinal disease. The pains of peritonitis and of enteritis have been already noticed in another place.

Pains of the extremities may be idiopathic, as in rheumatism, inflammation, disease of the bones, &c., or symptomatic; the latter only claim at present our attention. At the beginning of acute disease, chiefly of fever, the limbs are the seat of a painful sensation compared to severe contusion. These pains were known to Hippocrates, who says, "Spontaneæ lassitudines morbos annunciant." The same is observed frequently in hypochondriasis and hysteria, and also in general disturbances occasioned by alterations of the blood, plethora, scurvy, saturnine

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intoxication, &c. Softening of the brain and diseases of the spinal chord frequently cause them. In diseases of the digestive tube pains are often noticed in the limbs, and also cramps. They are often induced, for instance, by "embarras gastrique," by diarrhœa, and their existence is usually noticed in Asiatic cholera. It is not so in diseases of the respiratory organs, but they are frequent in maladies of the circulation. In gangrene of the extremities, connected with vascular obstruction, patients complain in general of very violent pain in the limbs.

ORIGINAL CONTRIBUTIONS.

A REPORT ON THE CAUSES, CHARACTER, AND TREATMENT OF SPASMODIC CHOLERA AS IT OCCURRED IN HER MAJESTY'S 86TH REGIMENT, AT KURRACHEE, IN JUNE, 1846.

By ALEXANDER THOM, Esq.,
Surgeon of the Regiment.

Communicated to the *Medical Times* from the Army Medical Board.

(Continued from p. 376.)

Influence of High Temperature.—By a wise arrangement of Providence, the human body is capable of bearing great ranges of temperature, without any serious injury to the healthy action of its functions. Indeed it appears that the sudden transitions from heat to cold, and *vice versâ*, are much more injurious than a long continuance of either. Yet there can be no doubt that a lengthened exposure to high temperature has a gradual tendency to undermine and debilitate the constitution of those who have been reared in, and accustomed to, the colder regions of the globe. It may, therefore, be presumed, that men living in tents from 96° to 100° of Fahrenheit were more predisposed to disease than they would have been at 86° or 80°, to say nothing of a lower range. I do not mean to say that a dry and heated atmosphere is in itself an ostensible cause of cholera, but only becomes a concomitant, followed by, and in connection with, humidity and absence of wind.

It is, in fact, to this last combination of circumstances that we assign the diathesis of the system which becomes cholera from other exciting causes connected with food, dwellings, locality, habits, &c. A moist state of the atmosphere is, in all countries and seasons, one of the most remarkable and certain causes of sickness of different kinds which we can seek for. Yet it would not appear to be a cause of cholera, unless when existing in an atmosphere at a high temperature, absolutely, or comparatively, perhaps. Nay we are disposed to think that, even in a hot air charged with vapour within a few points of saturation, the human body might escape active disease, so long as the air is in rapid motion, and uninterrupted, by day or night, even for a few hours, by ill-constructed buildings or sheltered places. But, if such an atmosphere becomes stagnant for any length of time, I believe it is demonstrably likely to be a cause of cholera, even without undergoing any chemical change or alteration whatever, without that intangible miasma called malaria, or those invisible animalcules which the Russians affirm to be the cause of cholera. I will immediately point out the accessories which, in the 86th Regiment, tended to aid the atmospheric causes in producing a virulent epidemic.

Chemical Change in the Air during Cholera.—Elsewhere (page 17) it has been shown, that with an increase of temperature and moisture, there is also an augmentation of the bulk, and diminution of the specific gravity, of the air; so that a volume which fills the lungs contains a proportionately less quantity of oxygen than it otherwise would do. This would be the case even in a dry hot air; and, in all probability, to this may be traced the origin of certain diseases peculiar to such a state—as the "apoplexy" of hot winds—and not to mere elevation of temperature acting on the skin. Now, the introduction of a large quantity of aqueous vapour, absolutely yielding no oxygen, into such an air, although it in some degree lowers the temperature, renders it even still more unfit for respiration, by its occupying a considerable proportion of each volume inhaled. From these phenomena, I calculate that, at the lowest rate, with the thermometer at 90°, and dew-point at 83°, a given bulk of atmosphere contained one-eighth less oxygen during the month of June, than it did in January and February. In temperate regions, two pounds eight ounces of oxygen are daily consumed by the lungs; but, instead of this, only two pounds three ounces would have been inhaled at Kurrachee, even if the number of respirations per minute were as great in hot as in cold climates, which is not the case. We also know that the soldier's ration is the same at all seasons, and he consumes as much animal food in summer as in winter—ay, in an Indian summer or Canadian winter—and that animal diet requires more oxygen than vegetable, to render it fit for assimilation. In India, during the hot season, the just balance between these necessaries of life is lost, and a tendency to morbid change must always exist in a more or less degree, according to the intensity of the predisposing and exciting causes.

Changes in the Blood dependent on the Climate.—Yet we admit that this is not *alone* sufficient to produce those death-blasts which pass over India in certain seasons, but that it is merely the first link in the chain of causation. The result is a carbonaceous state of the blood, diminished formation of fibrine and albuminous matters; while the crude matters from which these necessary elements are formed, require unusual energy of the system to throw them off. The liver acquires increased action to remove the carbon; while the skin, in consequence of the renal secretion being diminished in hot climates, has not only to carry off the fluid, albuminous, and saline parts of the blood, but the nitrogenized matters also.

That such a condition of the blood existed at Kurrachee in June, was evident in every case where it was examined, whether in cholera or other cases; nor is this new or unexpected, although an important fact. In men, previously sound in health, the immediate evils arising from this are, no doubt, very frequently averted by the adaptation of our functions to relieve Nature in many ways that must ever elude our scrutiny. But it must be pregnant with danger, while extraneous or trifling sources of irritation must tend to produce open disease; and the preservation of health under such circumstances must depend on an uninterrupted activity in the hepatic and cutaneous excretions.

Congestion, along with Deteriorated Blood.—Let us suppose any sudden or unusual congestion to take place in a system already impregnated with so much grave, although latent, germs of disease: I mean simple congestion, unconnected with any specific poison inhaled by the lungs or received by contact. It is almost needless to observe that such a phenomenon would lead to the most dangerous and fatal results—such, I firmly believe, as our regiment experienced. I am not prepared to say that the altered function of some organ may not produce a diseased secretion, which may act as a deadly poison by getting into the blood, and be the immediate cause of death; all I contend for is, that even this is but a consequence or part of the series of morbid actions merging into cholera.

Congestion Fostered by Moist Air.—The next point which forces itself on our notice is the presence and agency of phenomena during and preceding cholera, which were eminently favourable to a morbid congestion of the circulating mass, whether previously deteriorated or not; these I consider to be undue moisture in the air, and a deficiency of the ordinary currents or winds: both being equally unfavourable to the process of evaporation.

The Air.—At the time when cholera existed, the dew-point was from 82° to 83°; every cubic foot of air contained twelve grains of aqueous vapour; and, had the external temperature been the same, all evaporation must have ceased from the skin and lungs; but, as the latter was at 96° in tents, this salutary process was not wholly arrested, although the quantity of vapour carried off from the skin must have been utterly disproportionate to the necessities of the system at such a time. At night, however, when the air fell to 85° or 86°—within two or three degrees of the point of deposition—this must have been almost entirely arrested, and no doubt was so under some circumstances. The cutaneous exhalents may even be in activity, and pour out their contents on the surface of the body; here, however, the perspired matter will remain, clogging the pores, congesting the extreme capillaries, and, with the body thus bathed in deteriorated fluid, the oxygen of the air is excluded from the skin, and the heat accumulates, which ought to be steadily removed by evaporation. The first stages of this state are rather active, but, if prolonged, passive congestion is the result, and a train of signs indicative of a cholera diathesis ensues.

Effects of a Calm, Moist Air.—It is probable that this state of the climate would have been corrected in a considerable degree by strong and steady winds, which usually prevail at Kurrachee in the hot months; for, if the air was so loaded with moisture as to oppose active evaporation, yet this would be partly compensated by any force that would rapidly remove the layers next the body as fast as they become fully saturated. This has been shown by experiment, which, applied to the case before us, gives this result, that from a surface equal to a disc of six inches in diameter, with the dew-point at 82°, and temperature at 90° in the shade, the evaporation per minute would be equal to half a grain in a calm, 1·40 in a moderate breeze, and 2·10 in a brisk wind: thus making the quantity of fluid removed from the system to be nearly three times as much in a moderate breeze, and upwards of four times so in a fresh wind, as in a calm or stagnant state of the atmosphere.

Cutaneous Exhalation.—It is scarcely necessary to allude to the vital importance of evaporation from the skin, and escape of vapour from the lungs, or by the renal emunctories, in all climates and countries; and every one, without knowing why, can appreciate the exhilarating and elastic feeling caused by *dry* winds, and languor and depression induced by humid ones; and in no country is this more perceptible than in India, even when there is very high temperature. The quantity of liquids, in one form or another, which is introduced into the body in hot countries exceeds that of cold ones by at least one-half, and in many individuals to double or treble the amount. The nature of things requires that it should be so; but it is equally important that this superabundant fluid should be carried off as quickly as possible, before it is replaced by a fresh supply of this necessary element, to become, in turn, the vehicle of extra heat and effete matters. I do not overrate the quantity of drink used by a soldier living in a tent at 90° or 96°, who consumes his ration of animal food, and takes drams of arrack, in stating it to be at least ten pints in the day; whereas, during a calm, even if the body was without any covering, the air could only carry off from six to seven pints; and, the secretion from the kidneys being too insignificant to compensate for the loss of the cutaneous action, a portion of this must accumulate in the vascular system, and produce congestion; that, by daily increase, and by gradually disordering the functions, would create additional thirst, and add to the primary evils. It happens, however, that the body is more or less covered with clothing, and shut up in close tents or confined barracks at night, all tending to arrest the circulation of air and evaporation of the cutaneous exhalations during the night-time, when the thermometer falling from 90° to 86°, or within 3° of the dew point, would lessen the amount of fluid removed from the body to nearly three pints, or less than one-half. This is in all pro-

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bability, connected with the fact of many more men being attacked at night, or towards morning, than in the daytime.

United Action of Morbid Agencies.—If, then—with constitutions long exposed to a bad climate, enervated by high temperature, and the qualities of the blood gradually changed by a deficiency of oxygen in the atmosphere—bodies of men become exposed to another and equally influential morbific agency, humid air, such as we have essayed to explain, we must anticipate the occurrence of much mischief. Simple congestion, if general, in a hot season, is alone sufficient to endanger life; for every tissue becomes engorged, and every function disturbed or altered. The arterial, venous, and lymphatic vessels and capillaries all participate in the disorder; the respiratory process is enfeebled and slow; the heart is oppressed, and unequal to its load; the brain and nervous system become torpid; the chylopoetic viscera lose their tone; and the portal system, being in a great measure removed from the general circulation, is affected by this universal obstruction in a very marked degree. The sudoriferous vessels on the surface are in an atonic state, and passively allow their contents to escape on the skin, which is so profusely bathed in moisture as to lead to the supposition that this secretion is increased, while in reality it is, comparatively speaking, diminished; but from the non-evaporating state of the air it is not imbibed, and leads to this mistaken idea.

Latent Condition of Cholera.—The state of the system first referred to, as resultant on chemical change of the constituents of the air—in which carbon is accumulated in the blood, and fibrine and albumen diminished—will vary in degree according to idiosyncrasies, habits, and constitution, so that certain numbers of a community will be affected to an extent bordering on, or breaking out into, open disease. Noxious agencies, whether of atmospheric origin acting on the skin and lungs, or as poison introduced through the assimilating functions, when applied in a minute degree, but steadily kept up for a length of time, have a tendency to produce effects that are called accumulative. Their action is latent, but not the less certain, till all of a sudden it is developed as if the whole had been suddenly concentrated into one overwhelming dose.

Connection with Scurvy.—The scorbutic diathesis furnishes a forcible example of this; and sudden death is not only induced by slight causes of excitement, in men labouring under it, but even those who have exhibited no alarming signs have been equally affected. This is exceedingly applicable to cholera, between which and scurvy there is a great analogy in the state of the blood; and on the former subsiding, the latter appeared in our regiment, and also in other corps.

Sudden Climax to Accumulative Morbid Changes.—If, then, by a sudden increase of all the causes of this latent diathesis, a state of the weather, inducing universal congestion almost approaching to obstruction of the vascular, system occurs, can we be astonished that life will, in many, be abruptly cut short, as if some lethiferous draught were suddenly swallowed? Such, I am firmly persuaded, is the only rational way of accounting for those numerous cases of cholera which terminated fatally in a few hours; with few of those symptoms which Nature usually exhibits in a salutary effort to remove local or general congestion. Sound blood might circulate slowly without destroying the nervous power; but, if it is deprived in a great measure of its vitality, it is quite impossible that it can be *delayed* in the brain without producing rapid dissolution.

Analogous to other Noxious Agencies.—When individuals are exposed to an atmosphere from which burning charcoal has removed a part of the oxygen they are struck down suddenly; yet the change which leads to this is gradually produced. This I have personally experienced in Portugal, when using one of the charcoal-burners common to the country, in a close room. Several of us sat for some hours in the deteriorated air, and were unconscious of its effects till a certain point, when all complained simultaneously; and the first attempt to run out produced distressing feelings, which lasted for many hours after being in pure air. A *minor degree* of exposure, but much longer continued, to an undue proportion of oxygen, would most likely produce similar, if less sudden, injury to the blood; at all events, place the system in readiness for the accession of mischief arising out of congestion, and unitedly produce fatal consequences.

That a choleric diathesis may often exist in a latent degree, among bodies of men, is more than probable, and may be often on the very verge of bursting forth into a pestilential epidemic by a trifling cause of excitement or aggravation, or long continuance of the remote causes; while, on the other hand, a few precautionary measures, or a favourable change in the weather, or other subordinate agencies, may be the means of preventing evils that would otherwise be great, and perhaps only a few solitary, but well-marked or, as is sometimes said, "suspicious cases" of cholera may present themselves.

It is by no means my object to insist on the nature of the remote causes of cholera being exactly that which I have endeavoured to explain: it is merely the connection that in some way exists between the disease and the state of climate adverted to, which seems to be demonstrable; and the changes effected thereby in the

(Tables B. and C. referred to in page 375).

TABLE B.

Meteorological Observations for June, 1846, at Kurrachee.

Daily Admission of Cholera in H.M. 86th Regt.	Day	Thermometer. 6 A.M.	Thermometer. 3 P.M.	Thermometer. 9 P.M.	Dew-point. 6 A.M.	Dew-point. 3 P.M.	Winds. A.M.	Winds. P.M.	GENERAL REMARKS.
..	1	82	88	86	78	79	West	West	Cloudy all day.
..	2	82	89	86	78	78	West	Calm	Cloudy all day.
..	3	83	89	85	77	77	West	N.W.	Cloudy. Heavy dust-storm.
..	4	83	90	86	77	78	W.S.W.	Calm	Cloudy. South-west monsoon setting in.
..	5	82	89	85	77	78	S.W.	N.W.	Do. do.
..	6	84	90	86	77	78	S.W.	N.W.	Do. do.
..	7	85	88	86	77	78	S.W.	N.W.	Do. do.
..	8	84	88	86	77	78	West	N.W.	Do. do.
..	9	84	88	86	78	80	West	W.N.W.	Cloudy mornings and evenings.
..	10	84	88	87	80	82	West	N.W.	Do. do.
1	11	85	88	86	81	82	W.N.W.	Calm	Cloudy, muggy, oppressive. Light winds at night.
2	12	86	89	88	82	83	N.W.	S.W.	Muggy, oppressive. Wind falls at night.
2	13	87	90	89	82	83	S.W.	S.W.	Do. do.
1	14	87	90	88	82	83	S.S.W.	South	Cirrus a.m; cloudy, sultry, and oppressive p.m.
47	15	87	92	90	82	83	S.S.W.	Calm	Light wind; muggy, exceedingly oppressive.
105	16	87	90	90	81	83	S.W.	Calm	Do. do. do.
104	17	87	91	88	82	83	S.W.	N.W.	Fresh breeze; cloudy, muggy nights.
49	18	87	91	88	81½	82	W.S.W.	N.W.	Do. do. do.
23	19	88	90	88	81	82	S.S.W.	N.W.	Light wind; close and sultry.
							North at night		
25	20	88	92	87	81	82	S.W.	N.W.	do. do.
20	21	86	89	86	81	81½	North.	S.W.	Cumulous clouds; a few drops of rain. Thunder at night, heavy rain, squalls, and lightning.
5	22	83	86	85	81	81	W.N.W.	Calm	A gale; cumulo-stratus. Light rain all day.
3	23	84	88	86	81	81½	W.S.W.	Calm	Cloudy a.m.; a clear sky p.m.
3	24	84	91	88	81	82	S.W.	N.E.	Calm at night, close and oppressive.
2	25	86	92	89	82	83	S.W.	N.E.	Calm; stifling sensation.
..	26	86	90	88	82	83	N.E.	N.W.	Calm a.m.; a fresh hot N.W. wind p.m.
..	57	88	95	88	82	82	S.W.	N.W.	Fresh breeze; low dense clouds; muggy.
..	28	82	86	84	81	80	Var.	N.E.	A dust storm p.m. Heavy rain and thunder from N.E. A cool air followed.
2	29	86	94	88	80	79	East	S.E.	Wild cirri-cumulus. Rain p.m.
5	30	85	85	84	80	80	South	S.W.	Cirri-cumulus; rain a.m.; Very heavy rain p.m.

TABLE C.

Meteorological Observations for July, 1846, at Kurrachee.

Day	Daily Admission of Cholera in H.M. 86th Regt.	Thermometer. 6 A.M.	Thermometer. 3 P.M.	Thermometer. 9 P.M.	Dew-point. 6 A.M.	Dew-point. 3 P.M.	Dew-point. 9 P.M.	Winds. A.M.	Winds. P.M.	GENERAL REMARKS.
1	1	86	89	85	79	79	79	West	West	Clear; sultry.
2	4	83	90	84	78	80	79	Calm	W. N.W	Clear a.m.; cloudy p.m.
3	..	84	88	84	79	80	79	N.W.	W.	Cloudy p.m. A thunder-storm from N.E., and heavy rain.
4	1	84	87	83	80	79	78	N.S E.	South	Stratus. Heavy rain a.m.
5	1	84	88	84	79	80	78	West	S.W.	Cirrus. Gloomy; light rain; fresh breeze.
6	..	84	86	84	79	80	79	S.W.	West	Do. do. do. do.
7	..	84	86	84	79	80	79	S.W.	W.S.W.	Cloudy; drizzling rain. Cool.
8	..	85	86	84	79	80	79	W.S.W.	S.W.	slight drizzling rain. Hot, muggy.
9	..	83	88	85	79	80	79	S.W.	S.W.	Do. light rain; wind falls at night.
10	..	84	88	84	79	80	79	W.S.W.	W.S.W.	Do.; cool wind all night.
11	..	84	87	84	78	79	78	W.S.W.	Calm	Cloudy. Do. do.
12	..	84	90	84	77	79	78	S.W.	Calm	Clear; a light haze. Hot, calm, close, oppressive night.
13	3	85	89	84	78	79	78	Calm	Calm	Gloomy. Stratus.
14	..	84	89	85	78	79	79	Calm	Calm	Clear, hot, oppressive. Light wind.
15	..	84	90	86	78	79	79	N.W.	Calm	Cloudy in the evening; cool night.
16	..	85	90	86	78	79	78	N.W.	Calm	Do. do.
17	..	84	89	84½	78	79	78	N.W.	Calm	Clear. Cool night.
18	..	83	90	85	78	79	78	W.N.W	Calm	Do. do.
19	..	83	90	85	78	78	78	W.N.W	Calm	Do. do.
20	1	84	91	84	78	79	78	N.W.	Calm	Do. Hot day; cool at night.
21	..	84	90	84	78	79	78	W.N.W	Calm	Cirrus. Do. do.
22	..	84	88	86	79	80	79	S.W.	West	Cirri-cumulus. S.W. drift.
23	..	84	89	86	78	79	79	N.W.	Calm	Clear.
24	..	84	90	85	79	80	78	N.W.	Calm	Clear at day; cloudy at night.
25	..	84	91	85	79	80	78	N.W.	Calm	Cirrus. A high N.E. current of air.
26	..	84	90	85	78	80	78	N.W.	Calm	Cirri-cumulus. Do.
27	..	84	88	86	78	80	78	N.W.	S.W.	
28	..	84	88	85	78	80	80	S.W.	N.N.W.	Cloudy. Cool day and cold night.
29	..	83	88	85	76	78	79	N.W.	N.W.	Clear a.m. Cloudy. Many cases of fever
30	..	83	88	85	77	78	79	N.W.	N.W.	Gloomy, cold, damp. admitted of a con-
31	..	82	86	84	77	80	78	N.W.	N.W.	Light rain. gestive type.

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human system are such as appear to me to be near the truth, although I cannot go into all the details which the case might admit of, and which would be required in a report made more accessible to the reader by printing. That a *humid* and *stagnant* air, following on, or *connected* with, *high temperature*, is likely to be a cause, *the general cause*, of cholera, may be proved to be the case by direct observation, and substantiated by numerous analogies of the same causes operating in a limited range; and even that, when the diathesis has been established in the hot months, it may be perpetuated by accidental circumstances, and cases may occur at other seasons of the year.

Circumstances Favouring its Development.—The native town of Kurrachee contains 15,000 inhabitants; 1,500, or 1 in 10, died of cholera in a month or six weeks; yet the same description of persons occupy the station bazaar in the cantonment, where about 1 out of 30, and upwards, died. Now, the former place consists of mud-houses, with mere crannies as windows or means of ventilation; while the houses are built so closely together, and the streets, barely wide enough to allow a loaded camel to pass, are so very tortuous and inaccessible to currents of air, that all ventilation must be arrested, unless during a perfect gale of wind. On the other hand, the bazaar is newly laid out in large compounds, divided by wide streets, straight and at right angles to one another, and the houses and stores are well built; so that the general ventilation of the place is secured, and tends to correct the pernicious influence of the narrow, close huts, occupied by the servants and lower castes, who were chiefly the victims of the disease.

When the cholera showed itself in Hydrabad, a little later than in Kurrachee, in forty-eight hours it carried off 96 out of above 400 prisoners who were confined in the gaol, and of course subject to more imperfect ventilation than the people of the town, who did not suffer in the same proportion as those of Kurrachee. The mortality among the 28th Regiment, on board the Zenobia, was most likely fearfully increased by a similar cause.

Cholera on Board Ship.—It is reported that almost every ship carrying Coolies from Calcutta to the West Indies was attacked with cholera in the first fortnight of the voyage. These poor creatures were, in all probability, labouring under a choleric diathesis *on shore;* but by sleeping in the open air, and thus exposed to free circulation of wind over the skin, they did not suffer, or perhaps should not have suffered, there. No sooner, however, were they cooped up on board a vessel, and hundreds of them shoved down into the "'tween decks," at night at least, or in the daytime also, if the weather was bad, than they got cholera; and this prevailed till they reached the cool and fresh breezes of the S.E. trade-wind. It is not improbable that this also partly depended on the vessels having the wind (N.E. monsoon) right aft—always unfavourable to the health of troops on board ship—till they crossed the equator, and had a better and cooler breeze from S.E. blowing on the beam. It is a fact strongly in support of our views, that cholera on board ship, when going before the wind, has been wholly stopped by "hauling up," so as to have it on their side; for it argues that no specific miasma existed in the atmosphere, but that causes unfavourable to ventilation, consequently of cutaneous evaporation, were connected with the spread of the disease, and *vice versâ*. In fact the history of cholera would furnish similar examples sufficient to fill volumes.

Casual Cases in Lower Scinde.—In October, 1845, a single case of cholera, but a pure and genuine attack, died in the 86th Regiment, at Kurrachee; but it never spread. In the European Bengal Regiment, which left Kurrachee to go to Sukkur in November of the same year, two or three cases died after the third or fourth day's march; but no further sign of the disease occurred during their subsequent journey to Bhawulpore, at a lapse of two months. In February, 1846, a man of the 60th Rifles, and some women of our regiment, died of this at Kurrachee; but there was no further spread of the malady till the awful visitation of June. All this would indicate a diathesis being perpetuated in certain persons, which is liable to be developed by very slight causes, especially that of muscular exertion, subsequent feverishness, thirst, and sleeping in the damp stagnant air of jungly districts, through which troops generally march. It is equally opposed to contagion, being the mode by which the disease is propagated and favourable to an *atmospheric* origin, fostered by local circumstances, and excited by mental or physical exertion, or depression, such as we are about to point out.

(To be continued.)

ON THE EMPLOYMENT OF CHLOROFORM IN SURGICAL OPERATIONS.

[Mr. Robinson, the eminent dentist of Gower-street, has sent us some practical remarks on this subject. Having administered these agents in upwards of eighteen hundred cases, not only for purposes of dentistry, but preparatory to severe surgical operations, he says]:—

Having observed, in several instances in which the chloroform has been exhibited to casual out-door patients at our hospitals, that considerable excitement was produced during the inhalation, and that this was followed (at least when the chloroform was given to what may be called the operating point), after the operation, by nausea and vomiting, succeeded by temporary debility, and that these effects were confined exclusively to the class I have mentioned, the out-door patients; never, in a single instance, following its exhibition to patients who had been even a few days resident in the hospital preparatory to being operated upon by Messrs. Fergusson, Partridge, Thompson, Morton, Wakley, &c.; and having seen effects from the ether when inhaled soon after a full meal, or when the patient was under the influence of stimulus, my attention was directed more particularly to the subject.

Presuming that these effects might depend in some measure on an imperfection in the preparation of the chloroform itself, and wishing to ascertain how far this was the case, I communicated the facts to Professor Simpson, requesting him to order from his own chemist a sample of chloroform, prepared precisely according to Dumas's formula, of the proper specific gravity.

The professor kindly acceded to my request, and I received the sample I required accompanied by a communication on the purity of chloroform, from which the following is an extract:—"Of course it is of the utmost importance that the article employed should always be of the same strength and purity, as, if our materials are different, we shall unquestionably have different results. I have found no kind of chloroform exceeding in strength that manufactured by Messrs. Duncan and Co.; and I have before me a specimen manufactured at Liverpool, which is of a proper specific gravity, but that alone is not sufficient: it must also be of a proper degree of purity; and this specimen is deficient in the agreeable and fruity odour it should possess, independently of its containing some free chlorine, which would cause considerable irritation on inspiration."

The preparation forwarded to me, and which certainly possessed in much greater perfection the agreeable fruity odour referred to, was administered in nine cases: in three only of which did it cause nausea, vomiting, or much excitement; and in two of these it was afterwards discovered that the patient had taken a hearty meal a short time previously to its exhibition; and in the other that he had been "priming," as he called it, for the operation, by liberal libations of gin and beer.

I have frequently seen the same effects from the ether inhalation when taken soon after a full meal, or while the patient was under the influence of artificial stimulus; and it will generally be found that under these circumstances nausea and vomiting will be the concomitants to exhibition, invariably so if it be carried to the point necessary for operating.

Judging from analogy, the effects of ether and chloroform in producing insensibility appear to me to be precisely similar: we have the same fixed state of the iris, the same general relaxation of the muscular fibre, without the prolonged state of excitement; in short, in either case a state is produced in which any operation may be performed without the slightest pain on the one hand, or struggle or resistance on the other.

At the same time it may be as well to observe that, in administering the chloroform (as with the ether), the pulse at the commencement increases in frequency, but returns when the patient is fully under its influence to its normal state; should, however, its administration be continued some time after the iris has become fixed, or should the patient, from imperfect inhalation of the due proportion of atmospheric air, show symptoms of approaching asphyxia, the inhalation must be immediately discontinued, and again resumed after the interval of a minute or so, when these symptoms have disappeared.

I believe it is now generally acknowledged that the chloroform possesses many advantages over ether, not only being very pleasant to inhale, but, when properly exhibited, seldom producing much, if any, irritation; while, if a full quantity be administered, its effects are more persistent, and, if the iris be carefully noticed during the operation, the patient may be kept perfectly inanimate, unconscious of external impressions, and insensible to the pain of an operation for forty minutes; not, however, inhaling the agent during the whole time: when once the patient has been brought to the operating state, he can be easily kept in this state by occasionally permitting him to inhale atmospheric air. Immediately the operator observes the rolling of the iris he must again apply his inhaler, and so on at intervals until the operation is completed.

The effects of the chloroform are more persistent, yet more evanescent, than those of ether, the patient recovering his sense of hearing before he is able to articulate or use voluntary motion. And in no case that has fallen under my observation has the patient fallen into that state of semi-consciousness, or apparent drunkenness, so frequently observed in persons following the exhibition of ether; nor, in the generality of cases, is the consequent debility so great or so protracted, though I have occasionally seen cases occurring in the persons of delicate females, in which great lassitude and even hysterical attacks have followed its exhibition. In these cases the exhibition of oxygen gas, diluted with atmospheric air, has been invariably successful. The quantity of chloroform necessary to produce the proper state of insensibility varies in different patients, some requiring only a drachm, while another will inhale three drachms, depending, perhaps, in some measure, upon the purity of the agent itself; but the average quantity is from one to two drachms.

The best method of administering chloroform has been made a matter of question.

Some prefer applying it by means of a sponge or handkerchief, urging, as an objection to the use of an apparatus, that many persons dislike to use an apparatus that had been indiscriminately used by others. This, however, is a very futile objection, as, by a parity of reasoning, the same persons might object to the removal of a tooth by means of the forceps that had been in the mouth of others, and yet in practice we never find such an objection urged or even thought of. Besides, it is well known that a piece of linen is placed around the edges of the face-piece, the only part of the apparatus that comes in contact with the face, and that is or ought to be removed on every fresh operation.

The objects in view are to administer the chloroform effectually without any unnecessary waste, or excoriating the skin of the patient; and when we consider this, and the uncertainty of the time that is required to bring a patient under its proper influence, it must be allowed that they

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are cogent reasons for the adoption of a simple, efficacious, and portable apparatus furnished with the valves necessary for inspiration and expiration.

I have never failed, in a single instance, in producing the proper stetus for operating when an apparatus has been employed.

THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

By GEORGE CORFE (Author of "A Popular Treatise on the Kidney," &c.), of the Middlesex Hospital.

(Continued from p. 331.)

CLASS II.

DIVISION III. *Thoracic derangement; Countenance of peculiar hues.*

From Cardiac Disease (chronic).
" Hydrops pericardii.
" Emphysema pulmonum.
" Œdema do. (engouement.)
" Do. pleuræ (hydrothorax).
" Bronchitis.
" Hepato-Cardiac Dropsy.

It has been already observed that as all faces, all forms, and all created beings, differ one from the other, not only with respect to their class, their genus, their species, but also with respect to their individuality, so, in like manner, it may be affirmed of semeiology in general, that although the practitioner may be called to witness a disorder in two persons of the same kind, in the same stage, and of equal severity, yet in their rise, progress, duration, and result there will not be found in the two diseases which have run their course exactly alike, in which each one has not presented some striking peculiarities in pathology which were not common to both.

In the second division of this class we have diseases grouped together which alter the natural *colour* of the face, and give rise to a tint which is foreign to it, and thus a morbid colour of surface becomes a valuable diagnostic sign of the disease which is progressing within. But the varied shades of colour which the physiognomist has to notice and to learn are always attended with more or less alteration in the natural cast of features, so that not only is the change of hue in the countenance valuable in diagnosis, but the distress in the features, which usually accompanies that change, speaks such powerful language to the mind of the experienced practitioner, that the disease may be read accordingly. It is a matter of great importance, and which is, alas! sadly neglected in the present day, that, when a sufferer from some serious disease presents himself to our notice, he should not be allowed to influence the mind of the medical man by the frequent repetition of trifling or subordinate symptoms; and truly, if an experienced man is able to derive much information from medical physiognomy, the minor points upon which the patient may lay much stress will not have any corresponding weight in his mind. His first aim will always be this: Where is the morbid or deranged organ? And to what extent has that derangement gone? The countenance will at once declare this in almost all the serious diseases which affect our mortal frame, and where that disease exists in the thorax, the combined use of auscultation and heautophonies will, for the most part, as fully detect the disease itself, both in its seat, nature, and extent, as though the morbid parts had been displayed before our naked eye.

It may be observed, then, that, generally speaking, the following change of colour in the face attends the diseases here grouped together. In the first place we have those which are ranked under the second division of this class, and I have also gathered together a few others, in order to show the varieties of tinge which different diseases exhibit in the physiognomy.

In Cardiac disease the countenance is livid.
" Emphysema " dusky.
In Hydrothorax the countenance is anxious and dusky.
" Hydrops pericardii " livid and anxious.
" Malignant disease " sallow.
" Icterus " yellow.
" Pneumonia " of a dingy flush.
" Pleuritis " pale and anxious.
" Bronchitis " dusky and livid.
" Œdema pulmonum " heavy and distressed.
" tubercular disease " wan and pale.
" Entozoa " wan and pinched.

Now, with respect to the varied *stages* of cardiac disease, whether those changes are in its muscular parietes, or in the valvular apparatus; whether the auriculo-ventricular openings are gaping or morbidly contracted in the alternate systolic and diastolic actions of this viscus; or whether its investing membrane is adherent to it, and its large vessels dilated and thin: yet one general observation holds good with respect to the physiognomy of individuals who suffer from disorder in the action of this important viscus, namely, that the features, as well as the hue of the face, sooner or later, undergo a marked change from a state of health.

The countenance of a person labouring under exo-cardiac or endo-cardiac inflammation is certainly oftentimes very peculiar to the disease itself; there is a greasy look about the face, and an expression of distress in the features, which is better known to, and sooner recognised by, a clinical observer than it is possible to describe; whereas, in the chronic forms of disease of this organ, the palpitation is both seen and felt by the medical man; and he may also notice the anxious, careworn, distressed cast of countenance, with livid or dusky-red lips and nose, the alæ nasi acting on the slightest exertion, so that this engine of the circulation is no sooner disordered in its movements than the features exhibit the distress which arises therefrom. The patient, moreover, seeks an erect posture in bed; the eye is anxious; the cheeks are faintly tinged purple; the jugulars are permanently distended, by which I mean that they do not relax either in the act of inspiration or expiration; there is an oscillating movement of the carotids in the triangular space formed by the sterno-cleido and omo-hyoidei muscles (a). There is also a manifest bulging of the præcordial region, and the whole pectoral muscle on this side feels fuller, larger, and more plump than on the right side.

I shall transcribe one out of the many instances of cardiac disease which I have in my possession, in order to show the progressive stages of endo-carditis, and its influence upon the several organs of the thorax and of the abdomen. The following case is the more instructive, inasmuch as we had the opportunity of watching it from its onset to its fatal termination:—

Mitral Valve closed to a mere Chink.—Pulmonary Apoplexy.—Dropsy.—Wm. Edsir, aged thirty-seven, a baker, admitted Oct. 6. Face bloated; lips and cheeks full and pinkish; alæ nasi acting; hands livid and cold; slight yellow tinge under the eyes; orthopnœa; dyspnœa occurring in paroxysms; abdomen full and with fluctuation; hardness and tenderness in the epigastrium; pulse 100, feeble and small; urine scanty, turbid, but contains no albumen.

Auscultation. — Free transmission of air throughout the lungs, attended with rhonchus and sibilus in the lower lobes. A loud rasping bruit attends the first sound of the heart, otherwise the heart is not noisy or forcible.

He states that, ten years ago, he was in this hospital, under Dr. Peter Mere Latham (a), for acute rheumatism; but although he had, at that period, no affection of his chest, yet just after he left the building he became sensible, for the first time in his life, of shortness of breath, though he had no palpitation. He received great benefit at this time by the application of leeches and cupping to the region of the heart and liver, together with the use of the salts of acetate and carbonate of potash in the compound infusion of scoparium. The lin. hydrargyri was rubbed into the side, and, although it brought on ptyalism, yet it afforded great relief to his symptoms, and the kidneys, which before were very obstinate, now began to secrete largely, and thus relieved him of the accumulated fluid in the abdomen, legs, &c., so that the orthopnœa had greatly subsided. He was, therefore, made an out-patient, at his own request, in order that he might go into the country. The following note, however, was taken down before his departure, Nov. 18:—

"*Auscultation.*—Rhonchus and sibilus over both sides of the chest, heard chiefly during expiration.(b) Large crepitation over both lower lobes behind; expectoration frothy; the sound of the heart, which has never altered, seems more audible under the sternum than on the left side. Five beats of the heart occupy one respiration, the two beats that accompany the inspiration are more loud as to the "bruit" (which then becomes almost vocal) than the other three. Says he gets better every day; abdomen less tense, but still fluctuates; countenance bright; legs quite reduced in size; urine clear, acid, but no albumen; sleeps well."

The following January 15 he returned from the country, where he became worse in consequence of catching cold on the journey. Abdomen more swelled and painful; œdema of legs increased; dyspnœa severe; has pain in the right shoulder; pulse small, it is now, and always was, quite regular; urine thick and scanty; the "bruit" is the same. As he did not wish to remain in the hospital, but to return to his family, he was allowed so to do on the 19th; but information was brought to me in another week that he had died, after having spit a

(a) This pathological condition of the large vessels of the neck depends upon a gaping auriculo-ventricular opening, so that not only is the mitral or tricuspid valve unable to close itself, and thus render the two chambers distinct and separate, but there is likewise, in consequence of this imperfect closure, a column of blood always remaining in the auricle and large vessels, by which means the latter are never capable of thoroughly emptying themselves.

(a) This gentleman was then physician to the Middlesex Hospital.

(b) These sounds, peculiar to bronchitis, are usually heard during inspiration; but where they are heard, as in the above instance, during expiration, it denotes intumescence or œdema of the whole mucous membrane of the bronchi, and is a much worse symptom than the former. This membrane is reflected from tube to tube, at their several bifurcations, just in the same manner that the skin, at the bases of the fingers, is reflected from the bottom of one phalanx to its adjoining phalanx, so that, whenever any ropy mucus is secreted from the membrane, it is driven upon this œdematous angle of the bronchus, and thus gives rise to these sounds, whilst the air is forced over them in expiration. I observed that it is a much more serious condition than rhonchus heard during inspiration, because the latter physical sign merely denotes slight irregularity in the bronchial surface from inflammation; whilst the former cannot occur without some effusion under, and thickening of, the membrane. I have frequently witnessed a sudden attack of suffocating dyspnœa supervene from this fierce irruption of bronchial œdema, and when it occurs in combination with cardiac disease, or with emphysema of the lungs, it frequently carries the patient off in a very few hours. The difficulty of breathing under such circumstances does not arise from any trouble to inspire, but from the inability to expire; the air cannot force its way *out*; so that the expirations are threefold more laboured and prolonged than are the inspirations.

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large quantity of blood. Permission was readily granted to perform the *post-mortem* examination in twenty-four hours afterwards.

Thorax.—Pleuræ filled with citron-coloured serum, as well as the pericardium. Lungs not adherent, and healthy, except the whole lower lobe of the right, which was one mass of pulmonary apoplexy, cutting like damson cheese; there were also several isolated portions in its vicinity, and some few dispersed through the same lobe on the left side.(a) The heart was large; bead-like vegetations, or warts, were on the edge of the tricuspid valve; the left ventricle was not much increased in capacity, but a deposit of bone was found on that part of the mitral valve nearest the aorta, whilst, looking at it from its ventricular side, a thimble-like projection was seen, rendering altogether the aperture a mere chink, so that water only dribbled through. The semilunar valves were shaggy, with similar wart-like vegetations on their edges. Polypous clots were entangled in the corneæ calumnæ.

Abdomen filled with the same kind of fluid as the pleuræ; some recent lymph gluing the diaphragm and liver together. The latter was large, with much congestion of the hepatic veins and biliary ducts; the congestion, however, was chiefly portal as we approached the surface of the organ. The kidneys presented a perfect specimen of "Bright's disease."

(To be continued.)

PROGRESS OF MEDICAL SCIENCE.

GUNSHOT WOUNDS.—A CLINICAL LECTURE BY PROFESSOR VELPEAU.

Gunshot wounds may interest the limbs or the body; we will first study them in the extremities. Of the abrasure of the surface of the limbs by shot we will say nothing, these wounds not presenting habitually any importance. They are said to be simple when the soft parts only have been injured; they are called compound when the bones, nerves, or vessels have suffered. Laceration of the nerves is a less severe complication than rupture of the vessels; and the latter has not so much gravity as fracture of the bones, unless, indeed, the divided arteries be of a large size. Fractures, complicated by ordinary wounds, have not by any means so formidable a character as those which are accompanied by gunshot wounds, on account of the destruction of tissues caused by the passage of the foreign body, the subsequnt mortification, and the rupture of the bone into numerous fragments. We should also observe that the protracted suppuration which follows exposes the patient to the threefold peril—of purulent suffusion in the limb, absorption of pus, or fatal debility.

The wounds inflicted by firearms do not cause, in all parts of the body, fractures of equal gravity. The fracture of two bones in one part, the vicinity of a joint to the injured region, are most serious circumstances in the prognosis. A bone may be simply perforated by the bullet, or its surface grazed by the passage of shot, without complete fracture; in these cases the peril is not great. Fractures of the inferior extremity are far more severe than those of the upper; the most dangerous of all are those of the thigh: the form of the bone, and the nature of its tissue, cause its fractures to be comminated in almost every instance; besides, the deep situation of the bone renders purulent suffusion of the limb an accident of easy production.

In the treatment of gunshot wounds of the limbs the question of utmost importance to the practitioner is that of immediate or secondary amputation.

In order to solve that question as far as it is in his power, in each particular case, he should recollect that these wounds present three periods. The first, which lasts from twenty-four to thirty-six hours, is characterized by stupor, and is the result of the sudden disturbance occasioned in the nervous system by the wound received whilst the subject is in a high state of excitement. The second period is marked by inflammatory reaction, and is analogous to the stage of elimination of burns. The portions of tissues which have been in contact with the bullet are disorganized by the violence of its passage, and must be removed by the efforts of nature. During the first three days of this second period, swelling and inflammation are observed; they soon cause an ichorous and thin fluid to be secreted, and finally the formation of true pus.

Amputation should, if necessary, be performed during the period of stupor, and not during the inflammatory stage. The task of the surgeon is often very embarrassing, and it is most difficult in some cases to come to a decision, the deceptive hope of preserving the limb often inducing the practitioner to defer amputation until it is too late to save even life. Fractures of the thigh are, of all, the most difficult, appearing often not very serious, and yet melancholy experience informs us that almost invariably they require amputation. Such is, at least, the opinion of Larrey, Perey, &c. When these wounds are in the neighbourhood of a joint, the operation is imperatively commanded.

Between the first and second periods of gunshot wounds, hemorrhage or gangrene may take place: if abundant loss of blood follows immediately the stage of stupor, the limb should be removed at once. We will say the same if mortification shows itself, and we do not admit that the surgeon should wait for the limitation of the gangrene. In none of our cases have we used chloroform; we believe that it might increase in a dangerous degree the stupor of the nervous system already produced by the wounds.

(To be continued.)

(a) This is one of those numerous proofs which we have of the true pathology of pulmonary apoplexy. A diseased and obstructed mitral valve on the one hand, and a consequent delay in the circulation of blood in the pulmonary veins on the other, invariably coexist in producing this morbid change. Portions of blood escape from the vessels the most remote from the heart, and the columns of inspired air force these extravasated portions from cell to cell, so that isolated masses of lung become solidified from such an escape of fluid into their texture, whilst the efforts of coughing dislodge other portions, and they are brought up with the expectoration. This judicious explanation of pulmonary apoplexy was first given and pointed out to me by our late physician, Dr. Watson, who speaks of it in his valuable Lectures on the Practice of Physic.

APPOINTMENTS.—The Dean of the Faculty of Medicine, Professor Orfila, has been removed from his office by the Provisional Government, and Professor Bouillaud is appointed in his place. M. Orfila has rendered signal services to the School of Medicine, and his popularity is not diminished by the decision of Government: he received the warmest thanks of the faculty on his retirement. His successor, Professor Bouillaud—who was the first to acknowledge the obligations of the French medical profession to the late dean, and who moved the vote of thanks—was received by the pupils at first with some slight manifestations of displeasure, which were soon changed into unanimous applause when he explained, in a spirited address, that the honour now conferred upon him was not of his seeking, and that he had accepted of it only on condition that the choice of Government would be sanctioned by his colleagues and by the pupils of the school.

D. M'CARTHY, D.M.P.

Successful Application of Electricity in the Cure of Diseases.—MM. Roggo, Manigrassi, and Pezutti give the following cases as illustrative of the power of the galvanic current to remove certain diseases when other remedies had failed:—A physician, fifty-two years of age, originally of sanguine temperament, but, in consequence of frequent illness, become lymphatic, had a scirrhous tumour of long standing near the inferior left rib. It had become adherent to the adjacent parts, causing lancinating pains on the corresponding side of the chest, and there was difficulty of lying down on this side. After various means had been employed without success, so that he was on the point of having it extirpated, he determined to try electricity. A galvanic pair of proportionate dimensions was applied to the tumour, and after four days its size was diminished, the adhesions destroyed, and the pains ceased. The patient shortly afterwards was entirely freed from his disease.—A child, eight years of age, had a strumous enlargement of the submaxillary gland, which was painful and adherent to the corresponding ramus of the lower jaw. It was totally cured in two months by the same means employed, as in the case of the physician. —A man, forty-five years of age, had, in consequence of hypertrophy of the liver and spleen, an old obstruction of the mesenteric glands, with disturbance of the digestive functions. He was cured by the same treatment after three months perseverance.—A patient, fifty years of age, was affected with a venereal eruption, which was attended with pain of the lower extremities; he had also a large node. Warm baths, mercurial fumigations, and many other means were employed without success. The galvanic couple was then applied. Five days afterwards all the morbid symptoms were relieved, the node had diminished one half, and had become mobile on every side. It continued to decrease, and when the report was closed the patient was nearly cured.

Rupture of the Fallopian Tube.—Mr. Russell presented to the Birmingham Pathological Society a specimen of ruptured Fallopian tube. He was sent for hastily, at half-past two P.M., to a young lady, about twenty-five, married four months. He found her in bed, in a state of great collapse; skin cold, pale, and bloodless, and she complained of intense pain in her bowels. She had been sick, and had had three purging stools; abdomen very tympanitic and tender. She had been in this state for two hours, without having been able to procure advice. He could obtain but little information from herself as to her previous state, and could not trace her having ever suffered any local pain. She did not think herself in the family way, as she had menstruated a fortnight previously, and had not experienced any symptom which would lead her to suppose herself pregnant She referred her pain chiefly to the præcordia. Her pulse was scarcely perceptible. Fomentations, opium, ammonia, as she objected to brandy, were ordered. She somewhat recovered, but soon sank again, and died in great pain early on the following morning.—*Sectio Cadaveris.* On opening the abdomen, a quantity of thin fluid, tinged with blood, flowed out. At the lower part of the abdomen was a large clot, the size of a saucer, and on removing this the left Fallopian tube was found ruptured. The rupture was situated near the junction of the middle and inner third of the tube; the ruptured portion was distended by a mass of fibrine, about the size of a large hazel-nut, in which, however, no ovum was discoverable; the wall of the distended portion was very thin. The uterus was enlarged, and contained a deposit of decidua.

Blighted Fœtus.—Mr. Hill presented to the society a blighted fœtus, apparently about the fifth month, which was born thirty-six hours before a fully-developed healthy fœtus. The patient, a middle-aged woman, was the mother of several children. It was thought at first that the shoulder presented; but upon a careful examination it was discovered to be the head of a child, apparently about four months. The membranes were ruptured, and the child expelled. The labour pains then subsided, and it was about thirty-six hours after that a second child of the ordinary size, and alive, was born. The placenta was double, and did not differ from that of an ordinary twin case.

Ice in Exhausting Diseases.—Ice taken internally

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seems to be of great service in reviving powers fast sinking. The reaction it induces may prove curative in some cases, while in others, in which this is impossible, a marked temporary amelioration of the patient's state occurs. In the cases in question there is great atony and extenuation, and an extreme aversion to any food whatever, with or without a development of heat. A number of morbid states and organic lesions, having no other points in common, may induce this condition. Iced water does not succeed anything like so well as the administration of the ice in little lumps, which, by requiring time for their solution, ensure its gradual introduction. These impart great tone to the system, and revive the inclination for food in a remarkable manner.

The Treatment of Remittent and Intermittent Fevers.—Dr. Harris, of Bryan County, Georgia, U.S., remarks, in "The Southern Journal of Medicine and Pharmacy," that he has administered quinine in every stage of the paroxysm, and has never observed any unpleasant consequences, but, whenever any effect was visible, it was always beneficial. Some attention, however, must be paid to the condition of the system, as well as peculiar idiosyncrasies, not so much with a view to prevent unpleasant consequences, as to ensure its effects. When circumstances will permit, it is always preferable to prepare the system for it by depletion, either from the bowels or the circulation, and by counter-irritation if indicated; but these preparations are rather to be regarded as matters of convenience; and in moments of emergency we may combine the remedy with such others as may promote its sanative influence, and thus regulate its effects so as to ensure nearly all the advantage of previous preparation. Large doses of sulph. of quinine are more applicable to the remittent than to the intermittent form of fever, unless it be immediately preceding a paroxysm of the latter, or where small doses frequently repeated have failed to break in upon the morbid chain; the dose, however, is to be regulated by the urgency of the case. Two cases of intermittent yielded to a dose of fifteen grains administered an hour before the expected paroxysm, after having resisted the frequent repetition of two grains every two hours, during the apyrexia, for three or four weeks. This is the converse of Professor Dickson's observation; but the discordance is readily accounted for by those differences in idiosyncrasy which may render the system of one individual amenable to the repitition of gentle impressions only, while that of another may require decided and powerful influences. There is an analogy in one respect between quinine and opium which does not appear to have been noticed. Every one knows the difference in the effects of small doses of opium and what are called sedative doses; quinine, when exhibited in a single dose of from ten to twenty grains, does not develop that excitement consequent upon the exhibition of the same quantity in repeated one and two grain doses. It follows, therefore, that in the pyrexia the remedy, like opium, should be exhibited in full sedative doses. Quinine is the principal remedy in intermittent and remittent fever, and under circumstances favourable to its operation is an unfailing one, but it is by no means the panacea it has been supposed to be; it is not, singly, capable of curing fever in its complicated forms; on the contrary, its effects are materially promoted by adjuvants, such as calomel, tartarized antimony, morphine, and blisters, alway of course taking into account any contraindication of either which may exist. The first of these adjuvant remedies is prescribed with a view to promote the secretions generally, which are always more or less interrupted in fever, as well as by its revulsive operation to divert and diffuse the nervous current reflected upon any particular organ; and the beneficial effects of quinia are particularly apparent when in combination with this article: in fact, they are mutually promotive of each other, and, where the event is desired, there is little doubt but that ptyalism may be accelerated by the combination. Tartarized antimony, where there is no irritation of the primæ viæ, is a superior remedy, and if properly managed is perfectly safe; commencing with very minute doses—from 1·30th to 1·20th of a grain, and by gradually increasing it, so as to adapt it with the utmost facility to the peculiarities of a patient, besides avoiding any of the undue catharsis which sometimes follows its exhibition. In this way it may be alternated with quinine, and the effect is generally apparent in a cool, moist skin, and subsidence of vascular excitement. Morphia is best adapted in combination with the quinine during the pyrexia, or where the latter has occasioned wakefulness; and at the present day there appears to be much prejudice against blisters in fever. The French system of cupping and leeching has almost banished them from the list of remedial agents in fever. Local depletion is, like many other remedies, very good in its place, and, where it can be applied directly to the hyperemied or inflamed part, it subserves an excellent purpose by removing the offending matter; but in any other situation it is impossible that it can have any other than a revellent effect. Where the excitement is sufficient to prohibit the use of blisters, it is also sufficient to authorize depletion from the general circulation.

The Physiognomy of Yellow Fever.—Dr. P. H. Lewis says this is striking and remarkable. With some it throws a gloomy, melancholy shade over the countenance; with others the brow is furrowed, the lip compressed, and they frown defiance on all around. At other times it is so blended with a comic, lively expression of countenance as to give the patient a peculiar, variable, and singular appearance. Once displayed, no effort of the patient can dispel it; he may rise from his bed, laugh and talk with his friends, become exhilarated with wine, or joyous in anticipation of coming pleasures, but he cannot chase it away. There it sits enthroned upon the face, like the shade of a monster, smiling in contempt upon the efforts of the physician, mocking the assumed gaiety and levity of its victim. Nor is the cradle exempt from its visitations. Its gloomy, cheerless mantle is often placed on the infant brow, giving to it a sullen look not suited to its tender face. The symptoms attendant on this form of disease are very peculiar; for, during the first stages, there is less irritability of stomach and vomiting than in any febrile endemic of the State. The matter ejected from the stomach during the feverish stage most usually consists of the fluids received into that viscus; but if the irritability continues in the stage of calm, there is vomited a mucus containing particles of flocculi resembling bees' wings. If bile is vomited in the second stage, it constitutes good reason for questioning the character of the disease.

Propositions in Reference to Intermittent and Remittent Fever.—Dr. Harris maintains—1. That irritation, specific or common, is the proximate cause of all disease; and that it may or may not superinduce inflammation, according as the reflex function may be rendered by it comparatively active or inert. 2. That intermittent and remittent fevers are the results of a specific irritant impressing primarily the nervous system. 3. That the cold stage of fever is occasioned by the concentration and activity of the irritant at certain periods; and that reaction, or the hot stage, is developed by the consequent impressibility of the nervous system. 4. That the type of fever will be determined by the activity of the irritant, by the direction of the reflected irritation, and by the condition which may render certain organs obnoxious to irritation or inflammation. 5. That this irritant is, directly or indirectly, capable of modifying and rendering noxious the secretions, particularly the biliary secretion. 6. That, as in health the reflex function is a physiological law, so in disease it is a pathological one. 7. That all remedies address themselves, directly or indirectly, to this law, and affect the system favourably or unfavourably in disease, according as it shall establish, confirm, or divert a reflected current.

Rheumatic Inflammation of the Tunica Viginalis Oculi.—The following case is related by Dr. S. Jones, of Appling, Georgia:—A servant girl, fourteen years of age, of good constitution, and remarkably healthy, was, on the afternoon of the 6th of September last, stung by a hornet, on the first joint of the fore finger of the right hand; she did not complain of any pain in it until about eleven o'clock that night, when she had some fever, with considerable pain in the joint where she received the sting; the next day the pain was not so great as the night before. She had no fever until late in the afternoon; when her fever rose again, and with it the pain returned with redoubled violence; so excruciating was it, that she did not rest that night. The next morning the finger was swollen, and there was a painful spot on the instep of the right foot. Her mistress gave her about eight grains of calomel, and followed it in three hours with a dose of castor-oil, and applied alkaline poultices to the finger and foot; the medicine operated well, but afforded no relief. On the evening of the 9th, Dr. Jones found her with a hot dry skin; pulse about 95 and soft; tongue covered with a brown fur, and red on the tip and edges; the fore finger of the right hand swollen, stiff, exceedingly painful, and so tender that she could not bear it touched; a constant and excruciating pain in the right foot between the third and fourth metatarsal bones. This spot was not larger than a dollar; the foot was slightly swollen; the entire right side appeared to be affected; the spine was tender from the middle cervical to the middle lumbar vertebra. The bowels had been twice moved through the day; the stools were thin and watery. Ten grains each of calomel and Dover's powder were given, and a dose of castor-oil ordered the next morning, a blister the entire length of the spine, and if free of fever, two hours after she had taken the oil, to give her three grains of quinine every hour, until fifteen grains had been taken, as there was a perfect intermission in the fever every morning. On the 10th she was not much better; her fevers were not so high, nor her pain so excruciating, but her right eyeball projected at least half an inch; the cornea and iris were healthy in appearance, but vision was lost. The conjunctiva projected remarkably around the cornea and looked red; the eyelids were both swollen and red. The girl declared that she had not then, nor ever had, experienced the least pain in it. The spine on examination was found tender, and a blister was put on at once. The lids were scarified, a piece of linen kept moist with the mucilage of slipery elm or pith of sassafras to be kept constantly to the eye, and an anodyne taken. On examination the next morning at six o'clock, the conjunctiva was not so red as it was by candlelight, and it presented no traces of vascularity. The mucilage to be continued to the eye, leeches to the temples, and small doses of calomel and Dover's powder to be taken every six hours, the calomel to be withdrawn when the gums became sore; the blister had drawn well, and she had rested better than usual. On the 21st, symptoms much the same as the day before; she has been free of fever for the last twenty-four hours; treatment continued, and the bowels to be kept open with salts; an opiate at night, and after that day to discontinue the calomel, and give it only every other night; to renew the blister to the spine as soon as the first was well. On the 6th of October the eye had receded to its proper position; no pain in the finger or foot, but the joint of the finger on which the hornet stung her is stiff; general health improving. She is at this time in the enjoyment of good health.

Phlebitis of the Brain and Meninges in Puerperal Women.—According to Dr. F. M. Ducrest, this affection in puerperal women is of rare occurrence, only five instances of it having occurred among 259 cases in which the head was examined after death. In one of these instances, the affection was not accompanied by any other cerebral disease; in the others, it occurred in combination with cerebral or meningeal inflammation. The first case was a woman, aged

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nineteen, presenting the appearance and physical signs of phthisis, who was delivered of a male infant at the eighth month, and afterwards became affected with frequent pulse and a peculiar tremulous motion of the eyelids, lips, and tongue. At first there was no other symptom; but on the seventh day after delivery there was increase of the affection, with delirium, headache, and some convulsive movements of the limbs. On the ninth day the pulse and respiration were accelerated, jaws locked, tongue dry, articulation imperfect, but intelligence apparently unaffected. There was great feebleness of all the limbs, and nearly complete paralysis on left side. In a few hours the pulse fell to sixty, the respiration became slow and laboured; soon after she died. On dissection, the meninges and cerebral hemispheres were healthy; but on section of the right side of the pons Varolii, and the cerebral and cerebellar peduncles of the same side, the vessels in the interior of these parts were found distended to the size of a large pin by firm dark clots, which, when extricated, appeared as dark brown cylinders of above a centimètre (nearly half an inch) in length. Around these the cerebral substance was of natural colour and consistence. The lungs were extensively tuberculated, and contained numerous caverns. On the right side of the uterus was found a vessel full of pus, surrounded by a slate-coloured induration of the substance of the organ, two millimètres (one line) in thickness.

The second case was that of a woman, aged twenty-five, who was delivered naturally, but soon after was seized with pains of the hypogastrium and limbs. These were followed by shiverings, fetid diarrhœa, and colic pains. The milk was suppressed, and leech-bites on the abdomen suppurated. On the ninth day, the pains being mitigated, she had severe cough with crepitant râle at the posterior and lateral parts of the right lung. From the fourteenth to the seventeenth day the right buttock swelled, and became the seat of lancinating pain; a large quantity of pus, with fetid gases and sloughs of cellular tissue, was evacuated by incision. There had been watchfulness and delirium, with gradually increasing loss of intelligence, and moderate cephalalgia. She died on the twenty-seventh day. The pulse varied between 108 and 140, and the respiration between 28 and 48. On dissection, there was considerable subarachnoid effusion; the veins of the pia mater, on the convexity of the right hemisphere, were filled with firm, friable, adherent clots, of a whitish colour, extending in some places into the cortical substance, and being darker in colour there and in the anfractuosities. The cortical substance was somewhat softened, and of a reddish colour; white cerebral substance not altered. The lungs contained some tubercles, and the lower lobe of the right lung was the seat of lobular pneumonia; several of the vessels were filled with partially softened clots. The venous sinuses and lymphatics of the uterus were filled with pus; the broad ligaments were also infiltrated with pus. The cellular tissue between the sacrum and the left great trochanter was gangrenous and full of pus. The three other cases presented symptoms and morbid changes similar to those just described.

Aneurism of the Arteria Innominata spontaneously cured—Obliteration of the Left Common Carotid Artery.—Dr. Wishart relates in "The Monthly Journal" the case of a labourer, of fair complexion, who complained of having caught a severe cold while at work, by which he had lost his voice. On placing the fingers over the clavicles, a most distinct murmur was perceived, extending also up the neck. Over the superior part of the sternum, a strong impulse, accompanied with a bruit, was felt, synchronous with the stroke of the heart. The pulse in the right wrist was barely perceptible. These symptoms indicated the existence of an aneurism. Along with it, the man had acute bronchitis, for which he was more immediately treated. His loss of voice, cough, and dyspnœa still continuing, he was admitted into Middlesex Hospital on the 27th of June, and discharged the beginning of August. On the 17th of this month, his symptoms were great dyspnœa, suffocating cough, inability to raise his voice above a whisper, moist râles over both sides of the chest, a strong impulse felt over the top of the sternum, and the pulse in the right wrist not perceptible. The treatment was directed towards the disease of the lungs, and he was kept on very low diet. He continued much in the above state for a month, after which he gradually improved. He was strictly confined to the house, and took small doses of acetate of lead daily, for several weeks. There was then only a very slight impulse to be felt over the sternum. He had had for some time back repeated attacks of hæmoptysis, connected with the state of his lungs, which were then in an advanced stage of phthisis. He lingered on in much the same condition until the middle of February, 1845, when he became much worse, and died on the 21st. A month before his death no pulse could be felt in either of the carotids. On opening the body, thirty-six hours after death, both lungs were found full of tuberculous cavities. The aneurism, larger than a duck's egg, involved the whole of the arteria innominata. On laying open the aorta, the aneurism was found spontaneously cured, the innominata being entirely obliterated. The tunics of the vessel were dilated in all directions into an oval pouch, which was completely and accurately filled by compact fibrine, deposited layer after layer in such a manner as to fill the interior to the level of the aorta. The orifice of the innominata was dilated at this part to the diameter of a crown-piece, and the arch of the aorta was also somewhat expanded, in the coats of which there was an extensive deposit of atheromatous matter. The fibrine occupied a small extent of the interior of the aorta, so as completely to cover up the orifice of the carotid artery. This vessel, with the right carotid and subclavian, was entirely blocked up, and the circulation to the brain could only have existed in any considerable stream through the left vertebral artery, both it and the subclavian being somewhat enlarged in calibre. The circulation to the right superior extremity must have been carried on principally by anastomosis between the branches of the thyroid axis and vertebral arteries of the left with those of the right side. The right common carotid artery was slightly contracted, and filled with fibrine for about four inches above the aneurism. The right subclavian, and the branches of the thyroid axis, vertebral artery, &c., were pervious, and of their usual calibre. The aneurismal tumour adhered firmly to the front and right side of the trachea, on which it pressed, and slightly diminished its size; the mucous membrane of this part of the tube was of a reddish-brown colour, and a few points about the size of pins' heads were raised, as if at one time the aneurism had showed a disposition to burst into the trachea. The pneumogastric nerve adhered closely to the coats of the sac in front, and was considerably stretched.

Duration of Pregnancy in the Human Female and the Cow.—Dr. Lockwood, in "The Buffalo Medical Journal," gives the following tables as the result of his observations on this subject:—

IN WOMAN.

Age.	Order of Pregnancies.	Duration of Pregnancy.
17	1st	270 days.
19	1st	272 ,,
30	1st	276 ,,
44	7th	284 ,,

IN THE COW.

Number of Cases.	Duration of Pregnancy.
56	Between 260 and 270 days.
556	,, 270 ,, 280 ,,
14	,, 280 ,, 286 ,,
1	,, — 290 ,,

APOTHECARIES' HALL.—Gentlemen admitted members on Thursday, March 2:—Edward Fitswilliam Sankey, Dover; Arthur Robert Pedgrift, Loddon; John Evans, Sunderland; and Richard Marley.

REVIEWS.

Vision in Health and Disease: the Value of Glasses for its Restoration, and the Mischief caused by their Abuse. By ALFRED SMEE, F.R.S., Surgeon to the Bank of England, and Lecturer on Surgery, &c. Pp. 64. Price 1s. Hume, Thornthwaite, and Wood, Opticians, Newgate-street.

This small treatise contains four lectures delivered at the Central London Ophthalmic Hospital. The first lecture treats of the physiology of the eye, and the manner in which we obtain our knowledge of the form, distance, magnitude, height, position, relation, or the state of rest or motion of an object, of which we shall quote a few paragraphs.

USE OF DECUSSATION OF OPTIC NERVES.

"From the above facts we find that the inner part of each eye respectively sees that portion of the field which is not seen by the other organ. These remarks apparently militate against the views of physiologists, who dwell upon the importance of the doubleness of organs, though probably a compensation exists in the decussation of the optic nerve. It is generally agreed by anatomists, that the outer parts of the two optic nerves pass to the brain without decussation, but that the inner fibres pass over to the opposite side. Now, the two outer parts see completely the same object, and, therefore, if the inner portions of the nerve of each eye pass over to the opposite, a really double impression would be conveyed to the brain; that is to say, that the sum total of the field of vision would be represented in each side of the brain, where any farther combination might be effected."

SENSE OF MOTION.

"From what I have said of the functions of the eye, you will be prepared to ask by what means are these delicate angles known? and to this question I reply, that the angles are formed by the eyeball moving either downwards, upwards, inwards, or outwards, through the mechanism of the muscles. Now, these muscles, especially the internal rectus, are supplied by numerous nerves, and I can but think that it is by the consciousness of the action of the muscles through these nerves, that we know the angles which enable us mentally to obtain the measurements. Physiologists would reply that the third pair of nerves are nerves of motion, not of sense; but it appears to me that the idea of motive is obtained through the nerve of motion, and hence this pair of nerves would be nerves of distance and magnitude, besides their strictly motive power. This sense of distance and magnitude would not differ from our sense of other motions taking place in various parts of the body, though, perhaps, it forms one of the most exalted instances of this character. Besides the muscle of the eye, muscular movements of the head, trunk, and other parts of the body have sometimes to be estimated by the brain."

ADJUSTMENT OF THE EYE TO DISTANCES.

"In reference to this adjustment, we may observe, without reference to minute forms, that the eye consists of the segments of two circles, united at the external edge of the cornea, and, moreover, we find that the cornea has a contractile power, which causes it to shrivel when cut out from the eye. Now, if you watch the little images formed on the cornea by reflection, you will find that they are smaller when the eye looks at distant objects than when the eye regards near objects; consequently, that cornea becomes less convex, or has less refractive power, at that period. In conducting this experiment, you must take care that the comparison of the image is made on the same spot of the cornea, otherwise you may be deceived, inasmuch as the cornea is not a perfect segment of a sphere, but is probably an ellipsoid. From the above facts it is manifest that the form of the globe of the eye changes during the adjustment—an effect which may be readily produced by the ciliary processes becoming fuller of blood.

"Now, if the ciliary processes become fuller of

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blood, pressure would be made in two directions: in the first place, pressure would be made outwards against the elastic spring of the cornea, and, perhaps, the ciliary muscle; and pressure would be made inwards, towards the centre of the vitreous body, which would produce a resultant force, having the tendency to carry the lens directly forwards, the cornea and back part of the sclerotic being either fixed or having a slight tendency to have their distance elongated.

"For adjustment to distant objects, the ciliary processes have only to disgorge their blood, and then the elastic force of the cornea would act upon the aqueous humour so as to produce a retardation which would carry back the lens, which is in reality a passive operation, or one not requiring our own exertions."

In the second lecture the various abnormal conditions of sight are considered, of which our author describes between thirty and forty distinct varieties. For lost sight, Mr. Smee strongly recommends the use of false eyes; and the following extracts will illustrate this chapter:—

FALSE EYES.

"Great nicety is required in the adaptation of false eyes, lest the artist so exactly imitates the colour of the sclerotic, which is whitish, bluish, or yellowish, the tinting of the iris, the size of the cornea, and centres it in so faultless a manner, that you must take care and not be enamoured with the beauties of a false eye unwittingly, and afterwards find, to your astonishment, that the object of your choice carefully puts by her soft and captivating eye in a little cotton wool before retiring to rest. Do not think that I am in jest in recommending you to beware of a false eye, for I have just heard of a case where a fair lady wore a false eye, which her husband never detected before marriage, and even up to the present time, when two years have elapsed, he has not discovered it. Before marriage she never dared tell him, and afterwards she feared to avow her concealment. I actually once met with a case, where a fair damsel, having two eyes with irides of different colours, desired a false eye to cover the colour of that which she disapproved."

COLOURLESS VISION.

"White light should appear white, coloured light should appear of its normal colour; but instances occasionally occur where parties are unable to distinguish all the colours of the rainbow. Owing to visual defect, a person has mended a hole in a green coat with a piece of scarlet cloth, conceiving that it matched perfectly. Sir J. Herschel has ascertained, by examining with great accuracy a party so affected that the eye was acted upon by all the colours of the rainbow; and that, consequently, the disease must have its origin in the sensual organs being incompetent to distinguish the difference. This inability to distinguish colours might be called colourless vision. My excellent neighbour, Mr. Renton, the artist, informs me that he once met with a gentleman who, having perfect sight in all other respects, could not distinguish any colour, as colours only gave the idea to his mind of light and shade. Such a case is extreme and unusual; but, had he been educated as an engraver, he, doubtless, would have greatly distinguished himself, as in that branch his defect would have been a benefit to him. I have also lately heard of a pupil who, on being desired to paint a green tree, made use of vermilion for the purpose, and was well pleased with his performance."

DISEASES OF ADJUSTMENT.

"In my former lecture I entered minutely upon the consideration of the mode of adjusting the eye to vision, and mentioned that some little time was requisite to effect that change. I have now to mention that in some instances the adjustment is performed but feebly, and requires a much longer time for its performance; this, therefore, is a case of slowly adjusting sight. From physiological considerations we may infer that the adjustment to near objects takes place from the entry of blood into the ciliary body, and pathology shows that in feeble, weakly states it takes place more imperfectly. Where slow adjustment exists, I generally find that quinine, iron, meat diet, fresh air, and exposure to the light of the sun, constitute the best remedies. It is an affection by no means uncommon.

"My optometer shows that it frequently happens that the power of adjustment either in one eye or in both takes place but partially, and even that this power may vary in the two eyes of the same individual. Sometimes this partial power is restricted to near objects, whilst distant objects are not perfectly seen. In other instances adjustment only takes place over a range more distant, whilst near objects are not perfectly seen; and, again, there are a third set of cases where the adjustment takes place in the middle part of the scale. These cases are important, because they are apt to be confounded with true short sight and long sight, which have for their origin a different cause. If we suppose four lines, one for normal adjustment, and the other three for abnormal, we shall be in a condition to understand how the range in both cases is contracted:—

Healthy adjustment ———————————
Near partial adjustment } ——— ——— { Far partial adjustment.
Middle partial adjustment ———

These conditions are exactly similar to those of a camera obscura, which has its lens so fixed as not to allow the motions sufficient extent for the different adjustments. A fixed state of pupil does not interfere with adjustment, for I have found it to be quite perfect, or even slightly better than that of the other eye, when it has been universally adherent to the capsule of the lens.

"There are also cases, not so frequent as the last, where the faculty of adjustment to different distances is entirely lost or absent—a condition which has been called by the great Dr. Young immutability of sight. I have seen a few such cases at various times; but for all these conditions of imperfect vision, the unlucky patients consult rather the ironmonger, the pedlar, or other venders of glasses, than the surgeon, who is rarely called in till the former worthies have rendered the case almost hopeless by improper glasses."

The third lecture specially considers the optical contrivances adapted to remedy the diseased conditions of vision.

THE VISUOMETER.

"The centre of each aperture of the frame should be exactly opposite to the axis of vision of its respective eye; and the adjustment of the exact centre of the glass to the optical centres is so important in practice, that I have contrived an instrument to measure the width accurately between these centres. It consists of two tubes, so arranged that they can play perfectly parallel, and admit of approximation and separation. At one extremity of each tube cups are fixed to fit the globe, and at the other a hole of about the one-eighth of an inch is left, through which vision is allowed. At the cup another aperture is made, as small as we can conveniently see through; and at the distant end a diameter is struck by a moving bar, which revolves on one tube, and plays into a revolving joint placed on the second tube, and from which the measurement can be read off to the one-twentieth of an inch. The apparatus requires to be made with considerable exactness, and care must be taken that all the parts are so firmly constructed that the motions of the tube are perfectly parallel.

"When we desire to measure the width of the eyes, the party has but to look through the tubes at any white surface; at that point where the two circles of light are most distinct the true width between the visual axes is indicated. This instrument, with even ordinary care, indicates the width with minuteness, and, considering the facility with which it can be made, and the little trouble required for its use, is an instrument, the employment of which we are not justified in neglecting in any case requiring the aid of glasses.

"I have called the instrument itself the *visuometer*, a term which may, perhaps, be objectionable to the classic, because it is compounded of a Latin and a Greek root; though, in my opinion, it is preferable, on grounds which I need not now consider, to other names which I constructed from the Greek alone."

THE OPTOMETER.

"We frequently desire to alter the relation which exists between the power of the refracting humours and the distance of the retina; and for this purpose we employ lenses which magnify or diminish, or which, applied to the eye, lengthen or shorten its focal distance. Before any kind of spectacles are adopted which either magnify or diminish, it is very necessary that we should have a thorough knowledge of the optical properties of the eye the defects of which we seek to remedy by optical contrivances. To effect this object I have contrived an optometer, which should invariably be employed by the optician before spectacles are sold to the applicant. The instrument consists of a convex lens, to which a graduated scale is affixed, of such a length that convergent, parallel, and divergent rays may be brought within a reasonable scope, and thus the eye may be tested by it.

"To suit all cases of refraction, I employ a geometric series of lenses:—1 of 20, 2 of 10, 3 of 5, and 4 of 2½ inches focal length. The graduated bar is twelve inches long, and an adjusting plate is so contrived that a piece of small print may be inserted for examination. By calculation I have found the point at which vision should be most distinct for each case; and, if any deviation from that exists, a correction is required by some optical contrivance."

THE AMPLIFIER.

"It becomes practically a serious and important affair to get over the indistinctness of these reading-glasses; and by far the best mode with which I am acquainted is to place a large plano-convex lens in a tube about eight inches long, with its plane surface directed towards the object. The tube tapers to the ocular end, and has an aperture suitable for vision. The working men amuse themselves by calling these tubes ear-trumpets for the eye, because they fancy that they are somewhat of that form, but the name which I have assigned to the instrument is 'the amplifier.'"

CALOSCOPIC SPECTACLES.

"Short-sighted persons should have two pair of spectacles, one to be used for near, the other for distant objects; and the glasses should be so arranged that the light from the object shall pass perpendicularly through the lens to the eye. Short-sighted glasses for reading should be directed towards a point about fifteen inches distant; for distant objects they should be on the same plane, or, to divide the error over every possible distance, a slight convergence may be allowed.

"These convergent spectacles I have before introduced to your notice under the term of caloscopic spectacles, and I believe that their extensive application will save the vision of hundreds. From my own experience, I should say that nearly two-thirds of all who use focal lengtheners, or concave glasses, practically employ but one eye, because their spectacles have been so made that they could only adjust one glass to the axis of vision. In the manufacture of these spectacles care should be taken that each glass converges equally to the part viewed; and for this purpose I have pointed out one or two contrivances, which I do not think it necessary to describe here. The necessity of this mode of arranging glasses must be immediately apparent if you look through the lens obliquely at a book; for in one position you will increase the length of the letters, and in the other you will separate them."

COLOURED GLASSES FOR HAY FEVER.

"For some years I have employed coloured glasses for that singular malady known under the name of hay fever. This curious disease is greatly aggravated by intense brightness of the sun, when combined with heat, and assisted by dust. Light will not cause the malady alone, heat will not produce it alone; but light and

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heat appear to me to be the agents which operate most powerfully in producing it; and the presence of dust of every kind, such as the dust from the roads, the minute portions of chalk, or the pollen of flowers, much heightens the malady. You will find that a pair of dark-green spectacles will wonderfully alleviate the distressing symptoms which are incidental to this complaint. They should be worn only in the middle of the day, when the rays of the sun are unpleasantly powerful; and they should be studiously put aside whenever the sun is clouded."

In the fourth lecture, Mr. Smee treats of lights and their influence on vision, on which we shall quote paragraphs on the photometer and the arrangement of lights.

PHOTOMETER.

"To judge, at one time, of the relative illumination of any object or the power of any light, and, at a second, of the sensibility of our organs to equal lights, instruments are employed called photometers, of which several have at various times been devised. A rough one, which I have found useful at times, is made of gold leaf, so arranged between two pieces of glass that I could look through either one, two, three, four, or more layers. This instrument is perfectly abstract, as it marks the amount of an opaque body required to prevent the light from any object exciting the eye. In this country I do not remember to have observed that the direct light of the sun ever exceeded four layers, or somewhat less than the $\frac{1}{10000}$th of an inch in thickness.

"For abstract opacity I have also employed bromine; but it is such a substance for acting unpleasantly on the system, that I have almost entirely confined its use to experiments of comparison. I have a little flat cell made to hold it, and I find that half an inch of bromine is rather more than equal to two layers of gold leaf.

"Acting upon the idea of the bromine and gold-leaf photometers, I conceived the possibility of employing a piece of neutral-tint glass, the form of a wedge, a certain thickness of which should be equal to a certain thickness of these simple bodies; and by employing it we might be enabled to express the values of any light or any illuminated object by the value of the opacity of bromine or gold required to render it invisible."

ARRANGEMENT OF LIGHTS.

"The arrangement of lights is of considerable consequence. By the ordinary mode of proceeding we illuminate the ceiling and the walls of the room, and the part which ought to be properly lighted is generally completely in the shade. The light, from being vertical, passes with greatest readiness perpendicularly through the glass to the walls of the room, whilst those which attempt to pass obliquely to the table below are in great part reflected. To obviate this difficulty, it occurred to me that the light should be placed at about an angle of forty-five degrees if placed about the centre of the room, or, if placed near the ceiling, almost horizontal. In my own library I am using a star, with three fish-tail burners, so arranged that the gas passes out horizontally—a direction which causes the flame to assume a curve eminently calculated to illuminate the table. An enormous increase of light is obtained by these means; and chandeliers and other forms of lights are now sold upon this plan, at my instigation, by Mr. Smith, of Finsbury-pavement. From the very great superiority of the illuminating power obtained by this very simple arrangement, I feel but little doubt that it will be very generally adopted."

TESTIMONIAL TO MR. G. VARNELL, Demonstrator of Anatomy at the Royal Veterinary College.—The pupils of this institution, on Friday, the 3rd inst., presented to their demonstrator, Mr. G. Varnell, a testimonial expressive of their gratitude for the kind assistance they had at all times received from him while pursuing their anatomical studies, and the valuable information they had derived from his instructions. The testimonial consisted of a handsome gold watch and chain.

THE MEDICAL TIMES.

SATURDAY, MARCH 11, 1848.

DEATH AMONG DOCTORS.

"PHYSICIAN, CURE THYSELF," is a hard and unjust saying. It raises a test neither of the certitude of the science nor of the skill of the practitioner. Of all men we are the worst subjects of medical treatment. To have a "corpus vile" to experiment on is of as prime utility on the score of *success* to us, as of *economy* to the chemists. We know both too much and too little—too little to have certitude, and too much to allow an easy faith; and, with this psychical peculiarity against us, adding twenty-five per cent. to the chances of disease, we have the great physical disadvantage, that our health is always more neglected and more under par than that of any class in the community of equal standing. We are as heedless of disease as sailors of drowning. Habit hardens us into indifference, and the very propinquity of the danger shuts our eyes to the necessity of precautions. Who, while so liberal of his cautions to others, does so many imprudent things as the doctor? Who trifles more with incipient symptoms? Who neglects more minor maladies? Who more listlessly tolerates a deteriorating condition of health? Who perils more carelessly or handles more recklessly his own delicate mechanism? Yet, once struck down on the sickbed, who looks forward to the result more nervously, or weighs the resources of medicine less hopefully? We are, in fact, monuments of the truth that the most fixed opinions do not regulate conduct in other matters besides religion, and that the wisest men are more apt to follow the current examples they condemn than the best precepts they inculcate. There have been few prophets who have done so much credit to their powers of foreseeing or of wisdom as to escape the disasters they have foretold; and we, the best exponents of the laws of safety, incessantly falsifying the divine thing within us, are the easiest victims death make acquaintance with!

Ireland in most recent years, but particularly within the last, has offered us a striking illustration of a truth that must now seem commonplace. Dr. Gavin Milroy, who has recently recalled our attention to it in a letter lying before us, says:—

"The simple facts are these: that whereas the "entire number of deaths among medical practitioners (about 2600 in all) in Ireland, for the "four years preceding 1847, was 252, and, consequently, the average was 62 per annum; and "whereas, out of these 252, there were 76 deaths "from fever—an average of 19 per annum; no "fewer than 191 have died during the past year, "and of these, 123 from fever alone. One in "about every fourteen of the medical men in "Ireland swept off in the course of a single "year!—a rate of mortality much exceeding that "in the unhealthiest climates in the world. The "majority, too, of these men were between twenty-"five and fifty years of age—the very prime of "life, when the physical and mental energies are "in their full development. That the fatal "disease was caught in almost every instance "from attendance upon the sick, is just "what we might expect; nor will any one "wonder at the frequency of this result if "he will for a moment realize to his mind the "condition of a man, worn out, it may be, at the "time with fatigue and anxiety, visiting the "wretched inmates of an Irish hovel—the very "focus of destitution and filth, even in the best "of times. I verily believe that there is not a "spot on the face of the wide world where me-"dical practitioners have to undergo such ex-"hausting and unremunerative toil, and are "exposed to greater danger in the discharge of "their holy mission—that of administering to "the sick—than in many of the districts of Ire-"land when fever is epidemic through the land. "Not to allude to other painful circumstances in "their position, I will only mention that the dis-"tance between their residences is sometimes so "great that, when one of our brethren has been "overtaken himself with the pestilence, he has "actually died without having received any pro-"fessional attendance!"

The mind sickens into melancholy or misanthrophy, or worse, before so revolting a picture of human infelicity. A decimation in one year of Irish medical practitioners! In some districts, where fever may have been more rife or fatal, *more* than a decimation! A bloody battle deciding the fate of empires, and whose murderous doings are the theme of panegyric to poets and of horror to philanthropists, is not nearly so fatal! With the doctor, too, there is no excitement of passion or pride—no hope of glory—no expectation of distinction or promotion—no booty, nor bulletins, nor decorations. He dies the unhonoured soldier of humanity—the uncanonised martyr of applied science! A gentleman tenderly reared—with hopes high as the best of our's—classically educated—his mind full of the wisdom of past ages—his heart expanding with the usual benevolence of the unspoiled man—he perishes in distributing the lights of a science which is life and health to the diseased multitudes around him—distributed, too, for an unworthy "hire" that bankrupts his comforts and much of his uses during the best part of life! Disappearing in some obscure region of a western province, all we know of the scholar, the gentleman, and the hero is, that he is No. — of one hundred and ninety-one items of professional humanity who met a hasty death somewhere in Ireland in the year 1847! The cold public hears of it as of an incident in antediluvian history; yet, unknown and unthought of in the inverse proportion of his usefulness, there is one, or perhaps more, to whom the death of this unconsidered man is as the passing away of a world. The funeral, with its ambitiously mean pageant, is often the first act of a domestic drama thus uncurtained for us by Dr. Milroy:—

"From the inquiries of Drs. Cusack and Stokes we learn that, in a large proportion of the deaths of dispensary medical officers in Ireland, their widows and children have been left in the most destitute condition. Let any one read the report of the medical committee in Dublin appointed to distribute the sum of £500, generously granted by the 'London Ladies' Relief Association,' among the families of those medical practitioners who have fallen victims to the prevailing sickness, and then say if he does not feel his heart burn within him to do something to mitigate such distress. Take, for example, such cases as these:—'A widow, far advanced in pregnancy, left with nine children, the eldest of whom is only eleven years of age, without any means of support.'—'The children, ten in number (no widow), of Dr. ——, left without any provision, except a trifling salary which the two elder boys have from petty situations.' And so runs this detail of misery and suffering; the whole number of cases among which the above sum was distributed being twenty-two, and among these were no fewer than seventeen widows and ninety-four children.

"Now, the question that I would put to the profession in every part of the United Kingdom is—Ought we not, as a body, to inquire into this truly melancholy condition of the orphaned fa-

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milies of so many of our brethren, in order that steps may be taken to afford them some temporary relief in the hour of affliction? There is a 'Benevolent-Fund Society' in Dublin, presided over and conducted by the leading physicians and surgeons in Ireland, the object of which is to relieve medical men under severe and urgent distress, occasioned by sickness, accident, or any other calamity; but the means at their disposal are utterly inadequate for the end in view. This society might be made the almoners of our general bounty; and, from the exact acquaintance which its members have of all who have most claim upon our sympathy, we should have the satisfaction of knowing that the funds committed to their care would be faithfully and judiciously applied."

Hopeless evil!—and still more hopeless cure! There is no balm in Gilead, no help in medicine—as now we have it—for the woes that, Lazarus-like, are thus brought to lie outside the professional gate. The beggar comes to beggars whose whole affluence is kindred-bred but useless sympathy. The munificence of our medical charities makes and keeps the belauded donors paupers; and between free hospitals, cheap unions, and advice-gratis consultations, the destitute orphan and unprovided-for widow, the calamity of to-day for professional Ireland, is the calamity of to-morrow for professional England!

THE NEW REFORM.

In the plan, as published by us a fortnight ago, there was a mistake, as we anticipated, on one point; we now correct it. Under Section 4 the text should run thus:—

"That those persons shall be entitled to be registered as surgeons who shall have been admitted as fellows or members by the Royal College of Surgeons. *That the members of the College of Surgeons who dispense medicines, or supply medicines to their patients, shall be required to enrol themselves in the College of General Practitioners, and to be registered as surgeons and general practitioners;* and, after the passing of the act, members of the Royal College of Surgeons shall not be registered as surgeons unless they be also admitted as members of the Royal College of General Practitioners, and registered both as surgeons and general practitioners."

This correction is the more necessary, as a contemporary (the *Lancet*), in subsequently republishing the plan from our columns (without acknowledgment), omitted our statement as to a *possible* inaccuracy. Our readers will observe that the difference is important.

THE POOR-LAW CONVENTION.

The Committee has continued, as usual, holding its weekly meetings: and the attendance has continued to be very full. Matters of considerable importance have come under discussion; but until the resolutions of Lord Ashley are disposed of by Parliament, before which they are expected to come on next Tuesday evening, it is obvious that a final decision, as to the course of action to be pursued, would be impolitic. Interviews with the Colleges of Physicians and Surgeons, the Society of Apothecaries, the Sanitary Commission, and Lord Ashley, have been held; and a deputation, there is no doubt, will speedily wait on Sir George Grey and Mr. Buller.

The following gentlemen attended the Committee on Thursday:—Dr. Hodgkin; Messrs. Lobb, Vallance, Lord, Bottomley, Ross, Cantrell, Peter Martin, Boulger, Stedman, Clifton, Mitchell, Barnett, Liddle, and the Hon. Secretary. Several of these came considerable distances from the country.

PROFESSIONAL WRONGS AND THEIR REMEDY.

In whatever country an educated medical profession has existed, its labours, philanthropy, and usefulness have always been of the highest order. The civilized nations of antiquity gave to those who excelled in the healing art the first honours; while kingdoms upon whom the light of science had feebly dawned rendered a grateful homage to medicine, and elevated its most renowned disciples to the rank of gods. While the efficacy of the healing art has in no degree diminished, and while men are in as much need as ever of its assistance, they have ceased to award to its disciples those honours to which the ancients considered them entitled.

The nineteenth century presents to our view the singular spectacle of members of the medical profession struggling to obtain that just position to which their learning, their talents, and their usefulness entitle them, and statesmen, in name the patrons of science, giving to them a doubtful approbation and support. How the spirit of the times was changed it is not our province now at length to inquire, but sad experience tells us that they are altered; so that, while men are ready to acknowledge the benevolence of the profession, they are very backward in rewarding its efforts. These remarks especially apply to general practitioners—a single class, it is true, of the profession, but the one which contains nine-tenths of its members. These are they who are employed as medical officers in the public services, in the parishes of the empire, and as the ordinary attendants of the middle and lower classes of society.

If we turn our attention to the surgeons in the army, we find that they are, of all officers, the most unjustly treated by the Government. This cannot arise from inferiority of education, or from their services in warfare being of little value. True, it is not their province to plan a battle, to manœuvre an army, or to command a battalion; but to restore to health and usefulness those who have been injured by the assaults of the enemy. To their country such services are of inestimable value, as they save many useful lives and a large expenditure of public money. Yet, within the last few months, when honours were awarded to the medical officers who served in the Peninsular wars, not a single decoration was considered necessary for any one of the army surgeons. Even to this day Guthrie remains without a title and without a riband, though he has toiled in numerous battles, and enriched military surgery by his literary productions.

In the navy, the medical officers experience, if possible, still greater neglect and insult. The assistant-surgeons are compelled to companion with boys in the gunroom—to eat at the same table, to study amid their noise; at night to swing in hammocks, like men before the mast. It would seem as if the Government had but one object in view—that of curbing their spirits and shackling their minds; nor has there been any concern exhibited to remedy these grievances, though the press has been loud in condemning them.

If it were possible to find an excuse for these insults to the profession, men in office might, perhaps, plead antiquity as their authority; this, however, will not avail them when a disregard to the profession is manifested in recent acts of the Government. Lord Morpeth has, within the last few days, introduced into the House of Commons a new bill for the preservation of the public health, in which no special mention is made of any medical officer whose duty it is to carry out those measures which have for their object the discovery of the causes of disease, and the means of their removal. Most of the apostles of Sanitary Reform are to be found amongst the practitioners of medicine, and they have furnished the Government with those facts which have been made the basis of the bill now before Parliament. Here their labours are not acknowledged, nor is there any prospect for themselves or the other members of their profession obtaining official posts should this bill become law. Medical men have a right to expect honourable and remunerative situations for having laboured when there was no reward in view. It is very doubtful, however, whether they will obtain any employment under the new bill, though Lord Morpeth would not admit that the members of the medical profession were slighted by its provisions. The bill, he would have us understand, gave power to the Treasury of appointing such a number of superintending inspectors as might be thought fit, and, from the nature of the thing, a considerable number of them ought to consist of medical men, or *engineers*, as circumstances might require. Then the bill gave power to the local boards to appoint officers to carry out the provisions of the bill who *might be* medical men. But why, in the name of justice and common sense, is it left a matter of doubt? A pretty spectacle, truly, for engineers and lawyers to become the paid officers of a board of health, to the exclusion of men who, from their education and employment, are most conversant with all the business relating to sanitary reform.

The same disregard of the interests of the members of the profession is manifested under the poor-law system of medical relief. The guardians of unions are allowed to peril the lives and health of paupers, by refusing to pay an equitable sum for their attendance in seasons of bodily affliction. A burst of popular and professional indignation, however, has smitten this fabric, which injustice and tyranny combined to erect, and it now totters to its fall.

But is there not a cause that a profession—whose education is the most liberal, whose labours are the most important, whose influence is the most extensive—should be so unjustly treated? There is; and we view it as consisting in a defective medical polity. The profession has been misgoverned by corporations steeped to the lips in selfishness; for, while they sell their diplomas at a costly price, they afford no protection to the majority who possess them. The oppressions to which we have adverted are felt only by one class—the general practitioners—and these are the unincorporated. The two London colleges consider it their interest to keep them "subordinates." The College of Physicians was established for "pures," and it has watched over the interests of those who form its corporation. The College of Surgeons is also a college of "pures;" and need we tell the profession that all its actions prove that it is only the interests of them it seeks? A most unjust thing it is that this pure college should be supported by extracting money from the pockets of those upon whom it confers no corporate privileges and no professional protection.

These are the things the general practitioners require to give them that importance in the eyes of the Government and people to which they are entitled. It is a matter of satisfac-

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tion to us to know that there is a prospect of a new incorporation being speedily brought into existence. Its enemies will endeavour to cripple it at its birth; but, judging from what has been stated in reference to its constitution, we think that it will confer on the general practitioners that which they have hitherto not possessed as a body—a name; it will consolidate their energies, watch over their interests, and shield them from many of those oppressions to which they have been hitherto exposed. The old colleges have treated the general practitioners as an "inferior grade," and the Government has, in consequence, thought them only worthy scurvy treatment and small pay. The new college, if properly constituted, will wipe out the stigma.

THE COLLEGE OF PHYSICIANS.

We understand that a deputation from the Provincial Medical and Surgical Association had an interview recently with the authorities of the College of Physicians, and expressed a very favourable opinion of the new scheme of Medical Reform.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Continued from page 366.)

(John Ayrton Paris, Esq., M.D., President of the Royal College of Physicians, London, called in, and Examined.)

Mode of Registration.—The classes should be physicians, surgeons, and general practitioners: general practitioners being persons with the double qualification of surgeon and apothecary, and licensed by competent authority. General practitioners should have a diploma from the College of Surgeons, and at the same time have testimonials from the Apothecaries' Company. In order that the registration should be conducive to the public good, I would recommend that each corporate body should send to the Secretary of State annually a list of their members. The College of Physicians will undertake, without any expense to the members of the profession, to secure a perfect registration, so far as they are concerned; and no doubt the College of Surgeons are equally willing to do the same, and also the Apothecaries' Company; the three lists might then be published under the authority of the Government, if you please, and there is the registration.

An Annual Tax an Annual Bore.—Clause 6, which contemplates an annual tax for the certificate, is in every way objectionable; it is an *ex post facto* law; we have already paid very heavy fees in the form of stamps for the power of practising, which we supposed we held for life; and now we are called upon to pay an additional fee for the right that we have so long enjoyed, and for which we have already paid. Clause 6 renders an annual application necessary, as well as an annual payment, for the renewal of the right to practise, and there is a penalty if you do not apply for a certificate. As regards the feeling of the profession generally upon that clause making it penal to practise in this country without an annual licence, for which a tax is to be paid and a fresh annual application made, I think that there is but one opinion; however medical men may differ upon other points, there is but one opinion upon that, viz., that it is an extremely unjust and extremely unfair measure.

Secretary of State not a proper Person to regulate Medical Education.—I am quite certain that that uniformity of qualification can never be attained by regulations issued alone by the Secretary of State; I think he is not likely to be a judge on the subject himself; he must, therefore, be entirely dependent upon the opinion and advice of other irresponsible persons. I do not think that will give such security to the public and to the profession as is now given by licences granted to persons by members of their own profession, in the face of the public, who are responsible and competent to form an opinion. The Secretary of State, acting under advice unknown, or, if known, possibly not possessing the confidence of the public, would not be such a protection to the public interest as the licences now granted by the medical bodies acting in the face of the public. I would observe that the registration should be nothing more than a record of existing qualifications; it should give to no person any power which he did not previously possess; it should be merely a record of what the qualification of the individual is, and nothing more. With regard to the registrars themselves, it strikes me that they are intrusted with powers to judge and decide upon matters which would render them very responsible persons indeed. I can hardly suppose that the registrars would be capable of deciding certain subtile and nice questions which must necessarily come before them with reference to qualification; numerous questions must arise which I apprehend the registrars would be incapable of deciding, and to whom it should not be left for decision.

Physicians' Fees honorary.—Clauses 11 and 12, which gave to physicians the right, which they have not heretofore had, of recovering payment of charges for their attendance, we object to very much; we consider that the physician would, under those clauses, be converted into a tradesman; we should feel that we had lost caste by allowing those clauses to pass. As relates to physicians, we wish to stand on the same footing as members of the bar, receiving an *honorarium*, but without having a right of charge. Speaking for my profession, I am sure that the feeling is general among physicians in that respect. I think that they would consider the transference to them of this power of charge for work done as inconsistent with their position as members of a learned profession.

Strong Opinion against the Bill.—I have gone through many of the clauses of the bill, but, taking it as a whole, I think that it is destructive of the respectability of the profession; that is my decided opinion; and, if destructive of the respectability of the profession, the interest of the public in the result would be most seriously damnified. I am satisfied that I am now representing the general feeling of my part of the profession—of the College of Physicians of England.

Penalties again.—There now exists a real and effectual legal prohibition to persons to practise medicine without our licence. The prohibition is not really carried into effect; we are not in the habit of prosecuting all who practise without our licence.

Dr. Harrison's Prosecution by the College.—The last prosecution was the prosecution of Dr. Harrison, who is now dead; he was prosecuted for practising as a physician without authority. I have some difficulty in saying how long ago it was, but twelve years, perhaps. That was within the seven miles' circle. How long it is since any prosecution has been instituted against any party for practising beyond that circle without authority I do not remember; I know that there are cases upon record. The effect which our privileges produced depends upon public opinion, and not upon the penal part of the law; there is no doubt of that. I do not know that the doing away of penalties would very much destroy the salutary influence of the college; we depend very much upon public opinion. Without having the power, however, of prosecuting parties for penalties, the necessity of coming to our college is superseded at once, because no physician will take the trouble to come to our college when he obtains all he can require without it; I apprehend that the effect of this bill would be to annihilate our college; the bricks and mortar would remain, but nothing else.

Dr. Paris puzzled.—With reference to Clause 9, which does away with the penalties, restrictions, and prohibitions, I acknowledge to be virtually obsolete, inasmuch as it is twelve or fifteen years since any person has been prosecuted within the circle of seven miles, and I do not know when a prosecution has been instituted in any part of England beyond the circle of seven miles; I, therefore, consider the penalties to which the 9th clause relates as already virtually abrogated. If they are virtually abrogated, no very ruinous consequence can follow from legally abrogating them. In that case, then, the first ground taken in this petition is abandoned; the words are, "That by Clause 9 the charter of the College of Physicians will be in great part, if not wholly, abrogated, and the college superseded in all its most important functions;" the objection to Clause 9 must be considered as withdrawn; but, supposing that those laws were abrogated, the moral influence of the college would still remain.

The Healing Water of Bethesda.—The legal effect of our withdrawal of the licence from a person who should practise irregularly, like the gentleman who invented water from the Pool of Bethesda, would be to make him liable to penalties; if he continued to practise, we might prosecute him. But we have not done so. So that the effect of our censorship is, after all, a moral effect; it has arisen from the unwillingness of gentlemen to expose themselves to the censure of so respectable a body as the College of Physicians. If the legal privileges which we now have were taken away, the moral effect would remain.

Fudge Distinctions.—The distinction can be defended which is made between persons practising within seven miles of London and persons practising throughout the rest of the country, and why a different rule should be imposed upon the man who practises at Chelsea and the man who practises at Norwich. Such is the present law. It appears to me to be reasonable; I think that a higher order of physicians should be secured for the metropolis; that has always worked very well, and it has preserved very much the dignity of the profession. In many parts of the country it is hardly to be expected that persons can be educated to the same extent that they are for metropolitan practice; you would not be able to secure the class of physicians for the remote provinces, suppose you equalized the character of their education; but, however, the fact is now that the same examination takes place for extra licentiates (as they are called) as for licentiates. I do not conceive that the superiority and dignity of the profession in the metropolis are sufficiently explained, and would be always secured, by the circumstance that the greater prizes for eminent men must always be there; it is not the greatness of the prizes which talent and learning obtain in the metropolis, than any rule respecting a circle of seven miles, which has caused the London circle to draw to it the most eminent medical men in the kingdom. I conceive, then, that the cause of the superiority of the first class of medical men in London is that rule respecting the circle of seven miles.

Functions of General Practitioners.—The general practitioner practises in medical cases and, to a certain degree, in surgical cases. He does, in fact, all that the physician does and all that the surgeon does, but in a way generally not quite equal to the way in which the physician or the surgeon would do it; he treats medical and surgical cases to a certain extent. As regards the inferiority of the general practitioner, the preliminary education I apprehend is different. I apprehend that the education of a physician and the education of a general practitioner differ very considerably, and that the skill of the physician depends very much upon the preliminary education which he has received. I hold that the previous intellectual training through which a portion of the profession goes tends to add very much to that medical skill. If that be so, it is probable that a certain portion of those who devote themselves to medical science will also exert themselves with a view to obtain that preliminary education, if it be found by experience that a liberal education is the best

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for medical science; it is probable that a certain portion who have the means will always endeavour to obtain that liberal education. They could not now do it if they had not the means of obtaining such an education. The point of dignity would be saved by a little difference of arrangement in the schedule, by putting three alphabetical lists: one of physicians, and one of surgeons, and one of general practitioners; that would be some improvement, no doubt. Merely dividing the list into three portions would remove one objection. The great objection entertained by myself and my college is to the examination under the authority of a gentleman almost necessarily ignorant of the profession, aided by a person either unknown to the profession, or without the confidence of the world.

Mode of Registration.—I have stated, as our petition signed by myself and the censors also states, that I have no objection to a system of registration; I conceive that a registration, made alphabetically by each of the Royal Colleges, and by the Society of Apothecaries, as far as England is concerned, might interchangeably be subjected to the registrar-general, for example, or some other public functionary, and published in one general printed form, and remitted to the municipal authorities throughout England and Wales, and might be sold at a cheap price, thereby affording to the public authorities on the one hand, and to the great mass of the people, on the other, a ready access, so that they may know whether an individual residing in their particular locality be or be not registered in one of the three great divisions of the profession; such a plan of registration would answer every purpose; it would be necessary, also, that Oxford and Cambridge should send an account of the graduates passed there; and such lists respectively should be inserted, in the order of their dates, in the general list to be prepared by the registrar-general.

(To be continued.)

GOSSIP OF THE WEEK.

Naval Appointments. — Surgeon: Robert Anderson, to the Investigation.—Acting Surgeons: Edward Adams, to the Enterprise; Thomas Littleton, to the Vernon.—Assistant-Surgeons: Henry Mathews, to the Investigation; William Dunbar, to the Andromache.—Acting Assistant-Surgeons: Robert C. Scott and John Murphy, to the Vernon.—Assistant-Surgeons:—William Ross, confirmed to the Calliope; Charles F. Williams, confirmed to the Locust; John A. Corbett, confirmed to the Pluto; Edward D. Auvergne, confirmed to the Linnet; William Evans (b), to the Ganges.—John Henry King dispensing-assistant, to the Royal Marine Infirmary, Woolwich.

Royal College of Surgeons.—Gentlemen admitted members on the 3rd inst., viz.:—Messrs. J. H. Bennett, R. Turton, J. W. Cleave, T. R. B. Isaac, E. F. Sankey, E. B. Gaylard, G. Dunn, J. L. V. Gregory, G. H. Macnamara, and J. G. Wilson.

King's College Hospital.—Tuesday se'ennight the annual general meeting of the governors and directors of the above charity was held at the board-room, Portugal-street, Lincoln's-inn, Mr. J. F. Twemlow in the chair. The report stated that the expenditure only exceeded the ordinary income by £47. The number of patients admitted during the year was 1253, exclusive of 106 remaining in the house on the 31st of December. The out-patients, in the course of the same period, numbered 17,901, being a very considerable increase over that of any previous year. The permanent fund of the hospital had been augmented by the munificent legacy of £1000 from the late Miss Colyer, of Farningham, Kent, and £50 from the late Mr. W. T. Praed. It was mentioned that the charity was still in debt about £200.

The election of an honorary surgeon to the North Dispensary, Liverpool, took place on Monday. Three candidates were nominated, Messrs. Whittle, Alanson, and Paterson. At the close of the poll the voting was announced to be as follows:—Mr. Whittle, 99; Mr. Alanson, 55; Mr. Paterson, 54. Mr. Whittle was of course declared duly elected.

The Medical Society.—The annual oration was delivered on Tuesday, and the Fothersgillian medal awarded to Dr. Lever.

Mr. Charles Dixon has given £500 to the Brompton Hospital for consumption.

Interesting to the Medical Profession.—An action was brought in the Bath County Court by Mr. Sprague, medical agent, against Woodward, for the recovery of £20, viz., the balance of a sum of £25 due for work and labour done as a medical agent. The defendant formerly practised as a surgeon in Cambridgshire, but eventually removed to Bath, into which city he was introduced by the plaintiff. There a misunderstanding arose between the parties, in consequence of Mr. Sprague refusing to take a bill of the defendant, who subsequently objected paying at all, and in consequence the present action was brought. In consequence of the original agreement between the parties being unstamped, the original sum was not recovered, but the judge awarded to the plaintiff the sum of £13, to be paid in a month. Mr. Fred. Woodward, it was stated, had been in the naval service of the East India Company, but subsequently it was discovered that no such person had ever been employed by the Company as a naval medical officer; and the name is not enrolled in the books of the Apothecaries' Company as a licentiate.

Alleged Death from Improper Medical Treatment.—On Friday an inquest was held on the body of Mrs. Ann Davies, the wife of a labourer, residing in Ashton-street, Tottenham-park. About seven weeks ago the deceased was taken ill, and, on the following day, the husband having obtained a note, Mr. Hobson, one of the surgeons of the South Dispensary, was called in. Mr. Newton, another surgeon connected with the same institution, subsequently lent his services. Mr. Hobson prescribed medicine, and, in about a fortnight afterwards, deceased exhibited symptoms of salivation. Her face swelled, and the left side of it was quite eaten away. She died yesterday week. Mr. Hobson burned in deceased's house the first prescription which he had written. Rumours were rife in the neighbourhood that the deceased had been improperly treated by the surgeons who attended her. Hence the inquest. Mr. Archer, surgeon of the Borough Gaol, who had, under the coroner's warrant, made a *post-mortem* examination of the body, stated, that the woman had died from *cancrum oris*, cancer of the mouth, a disease which, though generally confined to infants, was sometimes found in adults. He did not think that any mercury had been administered to produce the diseased appearances which he saw, and he was of opinion that, throughout the whole case, the patient had been judiciously treated. Mr. Wm. Gilmour, the apothecary of the institution, proved that no mercury was contained in the prescriptions which he had prepared for the deceased. The medicines, which he named, met Mr. Archer's approval. The jury brought in a verdict of "Died by the visitation of God." In the course of the inquest Mr. Appleby brought an incidental charge against the medical officers of the South Dispensary, for transferring to parish surgeons patients duly recommended to them by subscribers. He produced a number of these notes, which had been purposely preserved at the Parish-office in Tottenham-park. The coroner promised to submit the matter to the chairman of the charity, to admit of its due investigation.

Coroner's Inquest.—An inquest was lately held before Mr. Wakley, M.P., at the Two Brewers public-house, St. Giles', on the body of Sarah Bransgrove, aged 47, who died shortly after undergoing an operation for strangulated hernia at King's College Hospital. It was alleged that the death was caused by the use of chloroform. It appeared from the evidence that the deceased, who was the wife of a porter residing in Little St. Andrew's-street, St. Giles', died on the 23rd of February last. On the Saturday previous to her death she complained of severe pain in the abdominal region, and at her own request was removed in a cab to King's College Hospital. By her own consent an operation was performed while she was under the influence of chloroform. She was perfectly sensible after the operation, and saw her son and husband, but made no complaint of the treatment adopted. She died on the following Wednesday. Mr. Fergusson, the gentleman who performed the operation, deposed that he operated upon the deceased while she was under the influence of chloroform, making the usual incision and replacing the intestine. The case was not a bad one, but he had found, upon a *post-mortem* examination, that the peritoneal inflammation, which was the cause of death, existed prior to her admission into the hospital. After the operation she was treated for peritonitis, but without success. The administration of the chloroform had nothing whatever to do with the death, and the operation had certainly tended to prolong life. Some angry feeling was manifested by the relatives with reference to the *post-mortem* examination, for which it appeared, however, that permission had been asked and obtained. The coroner commented on the fact, that the incision made had not been sewn up before the body was sent to the friends. Such neglect was, he stated, very much calculated to cause angry feelings on the part of the relatives. Mr. Fergusson assured the coroner that he had ordered the incision to be secured in the usual way, and regretted that his instructions had not been attended to. The jury returned a verdict of "Natural death."

Obituary.—On the 12th ult., at his residence in St. Mary's-square, Bury St. Edmund's, aged 88, Thomas Smith, M.D., lately physician to the Suffolk General Hospital, and formerly to the Nottingham Infirmary.—On the 6th ult., Wm. Daw, Esq., M.D., of Chicklade-house, Hindon, Wilts, in his 89th year.—On the 20th ult., in Upper Beau-street, Everton, Liverpool, of consumption, aged 36, Mr. Joseph Seward, surgeon.—On the 20th ult., aged 60, Dr. Bedale, well known for his extraordinary feats in swimming.—At Hertford, on the 29th ult., respected and regretted by all who knew him, George Dickens, Esq., surgeon, in his 68th year.

MORTALITY TABLE.

For the Week ending Saturday, March 4, 1848.

Causes of Death.	Total.	Average of 5 Winters.
All Causes.....	1114	1107
Specified Causes...	1089	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	270	184
Sporadic Diseases.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	49	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	136	138
Diseases of the Lungs, and of the other Organs of Respiration	178	225
Diseases of the Heart and Blood-vessels.....	35	39
Diseases of the Stomach, Liver, and other organs of Digestion	79	62
Diseases of the Kidneys, &c.	16	9
Childbirth, Diseases of the Uterus, &c	9	13
Rheumatism, Diseases of the Bones, Joints, &c. ...	6	8
Diseases of the Skin, Cellular Tissue, &c.	2	1
Old Age.....	40	79
Violence, Privation, Cold, and Intemperance.....	20	31

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NOTICE.

SUBSCRIBERS IN ARREAR are respectfully requested, in conformity with the terms of their subscriptions, at once to forward their remittances to the OFFICE.

☞ The subscription for the stamped edition of the *Medical Times* is 15s. for the half-year, and £1. 6s. for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfrae.

THE CHART.

In transmission of the Chart through the Post-office, the beauty of the lithograph is impaired, for the creases unavoidably made in folding a sheet of so large dimensions cannot be smoothed without danger of disturbing the colours. This detracts from the value of an engraving destined to a permanent and ornamental position in the study and the laboratory. We have, therefore, to announce to the annual subscribers on our roll, that we defer the delivery of the Chart through the Post-office, in order to afford to those gentlemen who have not received the Chart an opportunity of providing for its receipt, where possible, through their connections in town, or, when more convenient, their wholesale druggist. Where this suggestion is not acted upon we shall send the Chart with the next number by post.

*** To meet the convenience of gentlemen wishing to possess the Chart, all annual subscribers entered on our roll during the month of March will be entitled to a copy.

The Chart is also published separately, price half-a-guinea.

"Quibble" is right; but the subject-matter (Corydon) is not worth the notice. While there is such a figure of speech as 'irony' the epithet 'learned' cannot be misapplied.

"M.D."—We have already as fully noticed the subject as our pages permit.

"Young England's" contribution, "A New Historic Doubt," is very able, but very dangerous. Its proper place would be one of the morning papers.

"A Pupil."—The law remains the same.

"W. H. D."—The woodcuts were not sent.

The paper signed "Jack Ketch" is unsuited.

"A General Practitioner."—It would be premature, as yet, to express an opinion.

"An Admirer."—All the numbers of the present volume may be obtained by an order through a bookseller. The publisher, also, will send them by post on receiving an order.

"P. D."—We have no agent there.

"Philo-Justitia," who sends us a long optical article on the reason why a sailor's clothing appears to shorten stout figures, forgot to send us his name. We have, besides, no room for his paper.

"Medico-Chirurgus" is thanked for his proffer.

Cambridge Union.—A correspondent writes that "One of the guardians of the Cambridge Union stated at a full meeting of the board, at which one of the Assistant Poor-law Commissioners was present, that a gentleman, who during more than thirty years has held the appointment of Regius Professor of Physic in the University of Cambridge, told him he considered that the union district officers were 'amply remunerated' for their services. Now, there are two districts to the Cambridge Union, to each of which a medical officer is attached. The population amounts to 25,000; the salary of the two district surgeons amounts to £175 per annum. In the year ending Christmas, 1847, the total number of cases attended were 2878, the number of attendances received by these patients being '16,500,' which shows that the 'ample remuneration' amounts to the sum of 'twopence halfpenny' for each attendance, including all 'requisite medicines, &c.' The late vaccinators were paid the 'amply remunerative sum' of one shilling per case. On receiving a letter from the clerk of the union, asking the reason of the few persons vaccinated in proportion to the number of births, these medical men had the 'inconceivable audacity' to state as one cause that the insufficient remuneration of one shilling per case prevented medical men making any very great exertions. Hereupon an end was put to their contracts. One shilling and sixpence per case was fixed, and tenders were advertised for! The late vaccinators sent in tenders. How many votes did they get? Not one!"

"Q. Q." asks if Ex-Sheriff Parkins is the same person who suddenly decamped from London to evade some monetary engagements, and subsequently lived and died in New York as a confirmed lunatic? We understand he is the same person.

"Pater."—The new bill provides for a very summary suppression of quackery.

"J. B."—Consult the secretary.

"A Poor Man."—We do not encourage the gratuitous-advice system.

"A Constant Reader."—We are very glad if we have placed an extinguisher on the Free-Hospital operations. They were a blot on medical science.

"A Lover of Justice."—The paper on the recent doings at St. Bartholomew's should have been authenticated.

"Hermes."—A sufficient knowledge of the language, so as to be able to read the authors selected by the College examiners, is easily acquired. A grammatical analysis may be demanded, and hence the candidate should be prepared to give it.

"Iatros."—The diagnosis was incorrect, and the treatment improper.

'Chirurgus, Dartmouth."—Irritating substances applied to the part may have altered the character of the local disease. It is expecting too much from us, therefore, to offer an opinion on a mere written statement.

"B. S., Birmingham."—The negotiations are still pending, though there is a prospect of an amicable arrangement of the differences.

"A Professional Sufferer."—The Government having given up an additional per centage on the income-tax, it would be useless to publish the letter.

"One About to Emigrate."—It is necessary to undergo an examination at New York, before permission to practise in any part of the States. The presentation of an English diploma will be esteemed evidence sufficient of a proper medical education, and will be a passport to examination without undergoing the course prescribed by the American colleges.

"An Inquiring Reader."—The meteorological reports are furnished to the Registrar-General by Mr. Glaisher, of the Royal Observatory, Greenwich.

"Quiz."—The physician's education is not more expensive than that of the general practitioner, and can be completed in less time, though a candidate is not admitted to examination at the college in Pall-mall before the age of twenty-six.

"A Member of the National Association."—It is impossible for us to say who will be the first officers of the new College of General Practitioners, should a charter of incorporation be granted.

"Dr. Miles."—The Registrar-General will, on application, furnish, without expense, the weekly return.

"A Member."—The charter of the English College of Surgeons was granted about the commencement of the present century. The Worshipful Company of Barbers is still a City corporation.

"Medico-Chirurgus."—The statement is not true. A general practitioner is allowed by law to charge a reasonable sum for advice and medicine.

"Lux Nova" offers no new remarks upon an old subject. We must, therefore, decline publishing his long paper.

"James N."—1. Yes. 2. Success is doubtful.

"Celsus."—We are not surprised, as it is an old trick to evade the payment of a medical bill. The objection will be overruled in court.

"A Dublin Surgeon."—If the bill should become law which it is proposed to introduce into the House of Commons in connection with the incorporation of a new college, Irish medical practitioners will be allowed to practise in England by observing certain requirements, without undergoing an additional examination.

"A Sanitary Reformer."—Lord Morpeth's bill does not expressly provide that medical men only shall be employed in certain offices which will be created if it become law. There is a danger that persons who have not laboured in the good cause will, notwithstanding, be made to taste the sweets of office to the neglect of the members of the profession.

"Mr. Hefford."—The letter should be addressed to the Secretary of the National Vaccine Establishment.

"Senex."—The bulky papers are left at our office. The facts are few, and might be condensed so as to be acceptable to the profession. We cannot undertake the work.

"An Eyewitness."—The revolting spectacle at Enon Chapel is one of the proofs among many of the necessity of a stringent enactment in reference to intramural interments. The press has frequently referred to the subject, so that a republication at the present time in our columns is not required.

"Accoucheur."—The offer is accepted.

"M.D., F.R.S.E."—We are unacquainted with the name; it is neither to be found in "The Medical Directory," nor in the three lists published by the English medical corporations. The governors have, in all probability, been deceived.

"An Operator."—The experiments are of little value, as they have not been conducted with sufficient care.

"A Licentiate."—The title will not be affected by the alteration at present contemplated.

"Anatomist."—The plates were executed by an accomplished artist. We are not acquainted with the price.

"Oxonian."—The numbers shall be forwarded as requested.

"Galen, Liverpool."—1. A fellow or licentiate of the Edinburgh College of Physicians is not allowed to practise pharmacy, the penalty being a forfeiture of all his rights and privileges, and an erasure of his name from the College list. 2. The fee paid by a non-resident licentiate is £35, which does not include certain other expenses.

"A Student."—Sir Patrick Dunn's Hospital, Dublin, is connected with the College of Physicians and the University. A student cannot enter after the 25th of November.

"An Old Friend and Subscriber."—There is an antidote that can be relied on. Electricity is not preferable to cold affusions.

"H. Hennel."—A magnet has sometimes been successfully employed in extracting such a foreign body.

"Microscopist."—The morbid growth, when sliced, is seen to be composed of innumerable white interlacing fibres, forming distinct partitions of a regular spherical shape. These vary from the size of a grain of sand to that of a pea, and are filled with a soft viscous jelly, of a greenish-yellow colour, which generally is clear and transparent, but occasionally turbid and opaque. This matter is composed of albumen, and retains its transparency in alcohol.

"Dr. Fraser."—Communication received.

"A Country Practitioner" informs us that he recently exhibited chloroform to a young man who was desirous of having a tooth extracted, but that it produced violent convulsions which lasted upwards of an hour. On recovering his sensibility, he complained of violent pain in the head, which was relieved by the application of cold water.

"A Cambrian."—It is necessary to obtain the Apothecaries' licence.

"Mr. B. Spurgin, Northampton," writes as follows, in reference to the income-tax:—"So dire, so unjust, so oppressive, and so odious a tax, I feel perfectly confident, affects no class of her Majesty's subjects so much as the medical profession. Tax real property if you please, but do not tax the hard earnings of such as never realise it, never pocket it; there is not a professional man in this realm but can state he has paid this tax upon what he will never pocket, over and over."

"J. Z., Bristol."—A provision will be made in the new bill to meet the persons referred to.

"E. P."—1. If the new arrangement should become law, the Apothecaries' Society will not be abolished, but it will no longer exercise the functions of a licensing medical corporation. 2. Yes. 3. Yes.

"S. W., Queen-street, Hackney-road."—We do not make it a point of recommending any particular medical gentleman.

"Dr. Malan, 7, Upper Seymour-street, Portman-square."—Communication received.

"Medicus," says—"For the information of J. J. G., under the head of Correspondence, page 336, Feb. 12, I beg leave to say that it is quite clear that any one might commence to practise as an apothecary at the age of sixteen, seventeen, eighteen, or nineteen, there being no law to prevent it prior to the passing of the monopolising Act of the 55th Geo. III. For instance, I began at the age of seventeen, and will defy the monopolists to put me down. In fact, similar cases have been decided against the old drugmongers of Rhubarb-hall, in our courts of law."

"Mr. Sprague, Bath."—The request shall be attended to.

"Dr. Granville, Piccadilly."—Communication received.

"Dr. W. C. Fowler, Corstorphine, Edinburgh," writes us, in reference to a letter which appeared in the *Medical Times* of Jan. 15, signed "A Hater of Humbug," as follows:—"The whole letter is so coarse and ungentlemanly, and the part of it in reference to myself so garbled, and breathing insinuations so unwarrantable, that, at first, I thought it might be more becoming not to stoop to notice them. Upon reflection, however, I think it may be as well to state that, if this correspondent will have the honesty or the manliness to give me his name, I shall undertake to prove to him, first, that he has published as an extract from the *Edinburgh Advertiser*, in reference to me, what was never in that respectable paper; and secondly, that he has acted the part of a secret slanderer in the observations with which he has coupled it. I suspect, although his youth and inexperience may have led him to perpetrate this attempt at injury, he will keep in the dark, and thereby shelter himself from the consequences of his conduct. If he is mean enough to adopt this course, I shall decline to correspond with him; and, should he forward any similar notes into which my name is introduced, your numerous readers will understand that he is one who prefers to circulate anonymously what he has neither the candour to avow nor the manliness to give his name to."

"Mr. Thomas Stainthorpe, Hexham, Northumberland."—Case of "Compound Dislocation of the Tibia at the Ankle-joint" received.

"Mr. Pritchard's" papers "On Dislocation of the Right Thigh into the Ischiatic Notch, and Dislocation of the Left Humerus backwards," received.

'Mr. William Hallam, Newcastle, Staffordshire."—The paper on the "Use of Chloroform in Midwifery" has come to hand.

"One who is Interested, Leicestershire."—The system will either be modified or abolished.

"An Extra Licentiate."—The title of M.D. may be attached to the name.

"Dr. Brown's" paper will appear next week.

"A Friend" is thanked. We shall institute a searching investigation into the Free Hospital affair. Woe to those who fear the light.

"Medicus."—We are not aware yet of the name of the publisher of "The Series of Medico-legal State Trials."

"A. J. G."—We are much obliged by the information; but our correspondent omitted the servant's present address.

Letters and communications have also been received from Quibble; M. D.; Young England; A Pupil; W. H. D.; Jack Ketch; A General Practitioner; Medicus; A. J. G.; An Admirer; P. D.; Philo-Justitia; Medico-Chirurgus; Cambridge Union; Q. Q.; Pater; J. B.; A Poor Man; A Constant Reader; A Lover of Justice; Hermes; Iatros; Chirurgus, Dartmouth; B. S., Birmingham; A Professional Sufferer; One About to Emigrate; An Inquiring Reader; Quiz; A Member of the National Association; Dr. Miles; A Member; Medico-Chirurgus; Lux Nova; James N.; Celsus; A Dublin Surgeon; A Sanitary Reformer; Mr. Hefford; Senex; An Eyewitness; Accoucheur; M. D., F. R. S. E.; An Operator; A Licentiate; Anatomist; Oxonian; Galen, Liverpool; A Student; An Old Friend and Subscriber; H. Hennel; Microscopist; Dr. Fraser; A Country Practitioner; A Cambrian; Mr. B. Spurgin, Northampton; J. Z., Bristol; E. P.; S. W., Queen-street, Hackney-road; Dr. Malan, 7, Upper Seymour-street, Portman-square; Medicus; Mr. Sprague, Bath; Dr. Granville, Piccadilly; Dr. W. C. Fowler, Corstorphine, Edinburgh; Mr. Thomas Stainthorpe, Hexham, Northumberland; Mr. Pritchard; Mr. William Hallam, Newcastle, Staffordshire; One who is Interested, Leicestershire; An Extra Licentiate; &c.

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No. 442. **SUMMARY.** March 18.

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ORIGINAL LECTURES.

LECTURES ON SOME OF THE MORE IMPORTANT POINTS IN SURGERY.

By G. J. GUTHRIE, Esq., F.R.S.,

Read by Mr. HANCOCK, Surgeon to the Charing-cross Hospital, and Lecturer on Anatomy and Physiology at the Royal Westminster Ophthalmic Hospital.

Lecture VI.

ON WOUNDS AND INJURIES OF THE CHEST.

(Continued from p. 386.)

Dr. Edward Barry, who was physician-general to the army in Ireland, published a book in 1759, "On the Digestions and Discharges of the Human Body, and the Diseases of their Principal Organs;" in which he advises an opening being made through the wall of the chest into an abscess of the lung, which should appear to be incurable except by extreme measures. He says, page 409, "Such abscesses or ulcers in the lungs generally adhere by a large surface to the pleura; that when this membrane has not originally been engaged with an inflammation, and afterwards suppurated, it is greatly thickened and hardened; that purulent matter is always contained under that indurated part." The thickness and induration of the pleura he thinks a sign by which the operator may be guided after he has divided the soft external parts. If this is ascertained, he considers it a certain external mark of the seat of the internal disease; a fact which auscultation and percussion, followed by the use of the small trocar and canula, would, in the present day, certainly demonstrate in time to prevent the evil of opening the chest in search of a cavity which might not exist. He refers to one case in which the cicatrix of a wound from a sword was opened, and a large quantity of matter evacuated, the patient recovering. To a second, in which the patient was cured by an incision made on the seat of pain, and which patient he saw twenty-eight years afterwards. He mentions two operations of a similar kind, and followed by a successful result, performed by a Mr. Tucky on two soldiers in Dublin, under his direction. In a fifth case, in which it was attempted at a late period, the thickness of the pleura prevented the completion of the operation. The external wound afterwards healed, but reopened and discharged a considerable quantity of purulent matter. The body was not opened. In a sixth case, the opening was made an inch and a half below the cyst of the abscess, which contained eight ounces of purulent matter. "The rest of the lungs," Dr. Barry adds, "were sound. If the operation had been rightly directed he probably would have recovered." If the observation of Dr. Barry was correct, that the rest of the lung was sound, this was an abscess the consequence of inflammation, and such as I have said I had seen sufficiently often to establish the fact of their more frequent occurrence, in such cases, than had been supposed by modern pathologists.

The revival of this method by Dr. Hastings as a remedial one in phthisis has not yet been attended by any great amount of success. However, one of Sir H. Marsh's cases, published in Dr. Hastings' volume on the Use of Naphtha, recovered, and was in excellent health some years afterwards. When a large cavity exists in the lungs, we are told that it is generally accompanied by smaller ones, as well as miliary granulations; hence, if the operation is to be successful, the latter conditions must be remediable by internal medicines; and in Dr. Hastings' work (page 118) a case is given, which, although not treated by himself, was put under the influence of naphtha, the patient dying from accident whilst under treatment; after death a number of tuberculous cicatrices were found in the lungs. Should such cases as the foregoing now and then occur, they will go far, Dr. Hastings thinks, to justify a more complete trial of this operation.

Pneumo-thorax, as a medical disease, means an effusion of air and of the matter of a tubercular abscess from a diseased lung into the cavity of the chest. It exists as a surgical disease when the chest is distended with air issuing from a wound in a sound lung; in other terms, it is emphysema of the chest. In the first instance it is the end of a disease—in the second, it is the beginning. A third kind may, however, occur as a surgical disease, in which it does not take place in the commencement, but follows after the lapse of a few days. It is then pneumo-thorax from an ulcerated opening, the consequence of an injury in an otherwise sound lung, and from which the patient may hope to recover. The essential difference between the first and the third kind is, that the lung in the first case is diseased.

This complaint, although frequently mentioned by the older authors, was never distinguished in an especial manner, until it was named pneumo-thorax by Itard, in 1803. It has been supposed that the air escaping through the bronchial tubes opening into the tubercular abscess must eventually excite inflammation of the pleura. It is, however, probable that, as air in emphysema does not always give rise to inflammation, it may not be the air, but the irritation caused by the rupture of the tubercle, and the diffusion of its contents, to which it owes its origin. Inflammation, once excited in this way, is followed by the effusion of a turbid, serous fluid, which ultimately becomes purulent, and by the formation of adventitious membranes, as in ordinary cases of pleuro-pneumonia, if the patient should survive the mischief long enough. The air which escapes into the cavity of the chest differs little from that which has been inspired, and usually occupies a much larger space than the fluid by which it is accompanied. When pneumo-thorax is the consequence of disease of long standing, the patient may be sensible of a sudden pain, which does not abate, and which is accompanied by an equally sudden increase of the difficulty of breathing, for which he cannot account. He feels relief by lying on his back, or on the affected side, rarely on the other, although the difficulty of breathing may increase, so as to render the further continuance of life doubtful, whilst the prostration of strength is considerable. The muscles of respiration are all in rapid and powerful action, the heart is displaced to the right side, when the complaint attacks the left; and it will be displaced somewhat to the left when the right is affected; in some cases it even descends into the epigastrium, or is otherwise removed from its natural situation, even towards the axilla, although the left side is supposed to be more obnoxious to this complaint than the right. The pulse becomes exceedingly quick and small, countenance pale, nights sleepless. The affected side is oftentimes evidently dilated, and the intercostal spaces may be less marked, or partly filled up, when the respiratory motion given to the parts under ordinary circumstances is seen to be deficient. But these differences, as well as that which can be obtained by comparing both sides by measurement, are not so marked as when the cavity is filled by fluid.

The discrimination of the disease will be assisted by succussion, or shaking, which, when effected by an assistant, may show that fluid is effused, but not air; also by percussion beginning from above, which, in the erect position, will give, in cases in which it is ascertained that respiration is null, a clear tympanitic sound, as low as the level of the fluid, when it changes abruptly to a dull sound, or that indicating its presence. If the patient be then placed in the recumbent position, the clear sound can be heard above, the dull one below, demonstrating the change in the situation of the air and of the fluid. An œdematous swelling of the side or back is by no means a common symptom when air alone is effused. Auscultation, in addition to the absence of respiration, when the chest is fully expanded, discovers no respiratory murmur; but a peculiar sound called by Laennec *tintement metallique*, or metallic tinkling, is heard at intervals, particularly on the patient's coughing, speaking, or breathing. It is imitated by dropping a pin into a large wine-glass. It, however, more nearly resembles the sound of a jew's harp in the hands of a child, and once heard cannot be mistaken. When this tintement becomes plainer and deeper in tone, it was called by Laennec "bourdonnement amphorique," because it resembles the sound produced by blowing into a decanter or large bottle, and is supposed to indicate the enlargement of the fistulous opening in the lung. The metallic tinkling is then a distinctive sound of pneumo-thorax; at all events, it is so in surgical cases.

The first operation of puncturing the thorax for the evacuation of air alone was performed by Mr. Kelly, of Leith, under the direction of Dr. Monro, sen., who had assisted Professor Meckel, of Berlin, in opening the body of a young soldier who had so extensive a pneumo-thorax that it had depressed the diaphragm so much as to cause the liver to descend into the pelvis; this led to the first idea in his mind of an operation for the evacuation of the effused air. Mr. Kelly's case was successful, and is related, with the case of Professor Meckel, by Sir A. Halliday, in his work on Emphysema.

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Case 25.—A soldier was sent home invalided from the West Indies, for hæmoptysis, which had succeeded a severe fall on the left side of the chest, received eighteen months previously. He was admitted into the Military Hospital of Chatham on the 9th of May, 1828. On the morning of the 13th, after a violent fit of coughing, symptoms of pneumo-thorax came on suddenly, and continued increasing till the 21st. "The most prominent of these symptoms were," to quote the words of Dr. Davy, "a feeling of extreme tightness about the chest and abdomen; rapid and difficult inspirations, between thirty and forty in the minute; great anxiety of countenance and agitation of mind, accompanied by a small pulse of 130; cold sweats frequently breaking out on the neck and face; considerable prostration of strength. On examining the chest, the left side was found more protuberant, and in all its dimensions larger, than the right; it was tense and, on percussion, sounded remarkably hollow and tympanitic, giving the idea of its being distended with air. The heart was found beating under the right mamilla." Under these circumstances, it was resolved, in consultation, to tap the chest, which was accordingly done in the following manner:—A trocar and canula were attached to an empty bladder, and the parietes of the chest punctured between the eighth and ninth ribs, the integuments and intercostal muscles having been previously divided with a scalpel. A little air timidly rushed out, and as it was considered, from the persistence of the symptoms, that its escape was prevented by adhesions of the pleura at the point which had been perforated, the operation was repeated next day. The puncture was then made just below the left nipple, and on withdrawing the stilet into the bladder, a large quantity of air rushed out and distended it. The bladder was then separated. Air continued to rush from the chest for several seconds, "as if from a forcible blow-pipe." When this ceased, and when the air began to pass inwards during inspiration, the canula was withdrawn, and the wound healed. The relief to the patient was sudden and great, but he continued to improve till the 17th of June, when the account closed. No further history of the case appears to have been published. The heart was still felt beating in the right side, and on the first motion of a fluid was perceptible in the left.—Dr. Davy, in "Philosophical Transactions," p. 1828.

Case 26.—From Dr. Johnson's "Medico-Chirurgical Review," vol. 10, page 478. Mr. Cornish, a medical practitioner, having suffered an attack of pleuritis, was attended by Dr. Johnson and Mr. Cooke from the 16th to the 21st December, 1828, when Dr. Johnson was satisfied of the existence of pneumo-thorax. On Monday, the 29th December, Mr. Cornish nearly expired from suffocation. He was lying on his right side breathing almost laboriously, countenance sunk, pulse between 130 and 140; he had had no sleep for many nights. The action of all the respiratory muscles was painful to behold; no perceptible difference in the size or shape of the two sides. The right emitted an extremely dull sound, the left sounded hollow throughout. The apex of the heart was beating rather to the right of the right nipple. The respiration was loud and rattling in the right lung, metallic tinkling distinct on the duty expectoration muco-purulent, with specks of blood and many black particles. In the evening Mr. Guthrie made a short incision on the lateral part of the left side between the sixth and seventh ribs, and cautiously opened the pleura, when a rush of air issued forth with a hissing noise, and strong enough to have extinguished several candles. The patient turned easily his body, breathed with comparative freedom, and expressed his gratitude for the operation. No fluid issued from the wound when made a dependent opening. A piece of linen was placed over the orifice. On Wednesday, the 31st, the difficulty of breathing returned, the wound having ceased to discharge air, the metallic tinkling had returned, and the right side of the chest was as sonorous as ever. The orifice was re-opened and enlarged, and the pulse fell to 120, the metallic tinkling ceased to be heard, the patient took nourishment and an opiate at night, the air being evacuated from the chest by introducing a probe.

Jan. 1, 1829. Has slept several hours; breathing easy; pulse reduced in frequency; appetite good. A canula was placed in the wound, when large quantities of air came through it on each expiration; the heart beat two inches nearer the central line of the thorax than before. In the night he became greatly oppressed, and died next day. On raising the sternum, the heart was found rather to the right of the median line of the chest; the left lung was collapsed to one-fifth of its natural dimensions; the vacant space was filled with air, and about fourteen ounces of turbid serous fluid. The pleura costalis and pulmonalis presented marks of inflammation of a few weeks' standing, viz., some thin false membranes which were easily separated by scraping with the scalpel. There were no marks of more recent pleurisy, even in the vicinity of the wound, there being only a slight ecchymosis between the pleura and subjacent cellular tissue, for the space of a few lines around the incision. A tube was inserted into the trachea, and air blown into the lungs. The left lung expanded to a certain extent, and air was heard to bubble out. The lung was then carefully removed, and an aperture was immediately recognised at the division or cleft between the two lobes. The tube was inserted into the bronchus leading to the left lung, and Dr. Johnson blew in air. It rushed forth at the aperture, and extinguished a taper that was held near it. The aperture itself was then more accurately ascertained. It was circular, and capable of admitting a crowquill. It was evidently fistulous, and of several weeks' standing. It was found to communicate with a very small excavation, formed by the softening down of some tuberculous matter, and into this small excavation a bronchial tube was seen to enter. Thus the communication between the trachea and the cavity of the chest was distinctly traced through a bronchial ramification, a very small tubercular excavation situated on the very surface of the lung, and an aperture through the pleura pulmonalis. The left lung presented some trifling tuberculation, but was not materially diseased. The right lung was much more tuberculated; but the tubercles were principally in a quiescent state. There was no other disease in the chest. The tuberculation of the lung was of old standing, and the softening down of the tuberculous matter must have preceded the formation of the opening and the escape of the air into the cavity of the pleura.

Case 27. By Dr. F. Bird.—William Layard was sent by Mr. Guthrie into the Westminster Hospital in August, 1842, with pneumonia, from which he recovered, but, suffering a relapse, was readmitted under Dr. Roe in September. On the 20th of October he was evidently labouring under the disease called pneumothorax, of which the following were the symptoms:—He lay on his back breathing with difficulty, the left side being evidently fuller and rounder than the right, the intervals between the ribs being less observable, or more filled up than on the opposite side. The pulsation of the heart could not be felt in its usual place, but was distinguishable to the right of the sternum. The integuments of the chest were so œdematous on the side affected as to constitute a prominent symptom. On percussion the sound of the fore part of the chest was quite sonorous, like an empty cask, whilst that of the opposite or sound side was dull; and, as the percussion was continued down towards the back, the sound also became dull, like that emitted from a full cask. No respiratory murmur could be heard on the anterior part or side affected, but metallic tinkling was distinctly audible within. On the 21st Dr. Bird punctured the left side with a very small trocar, and drew off forty-two ounces of a whey-coloured serous fluid, a considerable quantity of air escaping through the canula with a very audible sound. The man was immediately relieved. The next day, the 22nd, he introduced a large trocar through the same opening, and drew off seven ounces of a fluid more turbid than the first, and on the 24th the discharge was purulent. The heart returned to its natural position, and some hopes were entertained of recovery, which were not verified, as on the 5th of November he died. On dissection the left lung was found to be shrunk and lying close to the spine, air on inflation passed out particularly from two openings on its anterior surface, one the size of half a crown. The pleura costalis was coated with fibrine, as well as the pleura pulmonalis. The left lung was full of tubercles, many in a state of suppuration; the right was tuberculous, and there was one abscess at the upper, and some purulent matter in the under part of the cavity of that side.

Case 28.—Mr. Stapleton, now Lieutenant, was wounded by a pistol ball on the 13th of February, 1832, when standing sideways. It entered the right side of the chest a little below the nipple, appeared to pass under the lower end of the sternum, just above or about the xyphoid cartilage, and to have lodged in the cartilage of the last of the true ribs of the left side, near its junction with the bone, in consequence of a round projection at that part resembling a pistol ball, but which, on being exposed, showed only a knob of cartilage which might have been a natural formation; no further steps were therefore taken. The injury had been received about four o'clock, it was now one; he could lie flat on his back, had little or no pain or oppression. Seven o'clock. Breathing became oppressed, and accompanied by pain; vesicular murmur distinct in both lungs; pulse 96. V. S. ad ℥xxxii. Nine o'clock. Difficulty of breathing and pain greater; was again bled until the pulse failed, although he was not faint. Relief obtained. Half past ten. Oppressive breathing again returned, pulse very low and quick. Thirty-six leeches applied, relief obtained. Half past twelve. Thirty-six more leeches applied. Half past two. Thirty leeches were again applied, so that four pints of blood were taken from the arm and one hundred and two leeches were applied to the chest, the bleeding being encouraged afterwards, during the first ten hours, by grains of calomel and four of the compound extract of colocynth had been given, and now forty grains of Batley's solution of opium were administered.—Feb. 14, 8 o'clock. Slept after four, awoke on waking took an aperient draught, and is much easier; pulse 120, soft, small and weak.—10 A.M. On the dyspnœa returning, twenty-one leeches were applied, and the oppression was relieved; felt sick, with a desire to vomit. Hauston effervescens.—5 P.M. Easier, but faint and restless; bowels not open; an enema given, which acted freely.—Half past 12. A returning oppression relieved by eleven leeches; calomel grs. ij. and opii, m. xxx.

15, 4 A.M. Night restless, but easier in the morning; slight tickling cough; little or no expectoration; no blood; faintness less, but thinks he would faint if he sat up in bed; pulse 120, soft, small and weak; little pain; lies tolerably flat; respiratory murmur appears tolerably distinct on both sides.—9 A.M. Oppression returned; eight leeches; repeat calomel and colocynth, to be followed by an enema, after which the bowels became free; the sickness, faintness, cough, &c. continued all day.—Vespere. Calomel gr. ij. haustus opii.

16, 8 A.M. Had forty-eight leeches applied at twice during the night; they have just ceased to bleed; has slept at intervals, and is easier; has no pain in the chest; pulse 110, regular. Is improved; an enema statim, afterwards calomel gr. ij. Pil. Hydrarg. bis die; opium.

16, 8 A.M. Slept fairly during the night, and is better; pulse 100, soft; breathes freely, and has no pain.—Vespere. Has had leeches applied twice during the day, making in all 96, and each time with relief; an enema, calomel and opium, as before.—Twelve at night. More oppression, and as the pulse was fuller and quicker, a vein in the arm was opened, but only four ounces of blood could be obtained.

16, 8 A.M. Slept at intervals, although very

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restless: pulse 120, fuller; oppression in breathing returning; V.S. ad ℥xx., causing him to faint; haustus sennæ.—Vespere. Has been much relieved by the bleeding; blood cupped and buffy; twenty leeches, enema as before, calomel and opium.—In the night, at two o'clock, the dyspnœa returning, twenty-two leeches were applied, and thirty minims of sol. opii given.

19, 8 A.M. Easier, quieter, better; pulse 110, soft; can lie quite flat on his back. The wound discharged so little that it was possible the matter had not a free passage; the external parts were therefore dilated inwards towards the sternum, until the pulsation of an artery could be seen, perhaps the internal mammary, which it was not thought advisable to disturb; respiratory murmur not distinct at night; enema as before, calomel and opium, and twenty leeches.

20. During the night, or at three in the morning, being greatly oppressed, thirty leeches were applied, and at eight o'clock twenty more, which quite relieved but left him in a state of great exhaustion, sick, and faint. A little arrowroot relieved the faintness; discharge from the wound free and accompanied by air; bowels open.—10 at night. Calomel, and forty minims of the solution of opium.

21, 8 A.M. Says he feels better, and now for the first time has a hope of life; pulse 112, soft; no pain; can turn on his side, but fears to hurt himself; wound discharges freely; has had a small piece of bread for the first time.—4 P.M. Restless, but better. Haustus sennæ c. mag. sulph.—8 P.M. Oppressed; pulse 120. Twelve leeches, calomel, and sol. opii. m. xxx. h.s.

22. Better; pulse 115, soft. Dr. James Johnson and Dr. Elliotson examined the chest, and satisfied themselves that no serous effusion had taken place, and that the lungs were respiring fairly. Calomel and opium at night.

23. Oppression at night relieved by six leeches; slept afterwards; breath slightly affected by the mercury, which was now omitted. The compound extract of colocynth, gr. x., given at night, with thirty minims of solut. opii.

25. Free from pain; breathes easily and without difficulty; can turn in bed with ease; slept well; the discharge from the wound is free; takes farinaceous food, oranges, tea, &c. He gradually improved until the 13th of March. On the previous Friday, the 9th, he removed from Long's Hotel, in Bond-street, to 125, Mount-street, and on the 13th amused himself by washing all over in a third or small back room without a fire; caught cold, and acquired a troublesome cough, which was quieted on the 14th, at night, by opium. On the 15th, A.M., it was evident that some mischief had been done; pulse 120; breathing difficult; was believed with a cold sweat; respiratory murmur indistinct on both sides; on the left not heard below the fourth rib; although the whole side sounded sonorously, it evidently contained air, the tintement metallique being very remarkable, on which account he was again seen by Drs. J. Johnson and Elliotson in the afternoon, who thought the pneumo-thorax of the left side complete both as to air and to a fluid effused. The wound having closed very much, and the distance to the left cavity of the pleura under the sternum being considerable, it occurred to me that a piece of sponge, tied around the eye of a small gum-elastic catheter in a proper manner, might be introduced, so as to enlarge the track of the ball, and give a passage to the air from the left side of the chest. This was done at five o'clock P.M., and at ten, on its being withdrawn, air rushed out in a very manifest manner, and to his great relief. The metallic sound, which was distinct before the instrument was withdrawn, instantly ceased, but could be reproduced by closing the opening. The small gum catheter was therefore reintroduced with the eye projecting beyond the sponge, and retained; air passing through it; cough very troublesome.

March 16. Quieter, breathes more easily; cough troublesome; expectorates a little mucus; bowels confined. Calomel and colocynth at night; mist. amygdal. c. antim. tart.

17. Better; pulse 100; bowels open; cough easier; expectorates freely a *rouillée*, or reddish muco-purulent matter.

18. Easier and better; breathing on the left side not heard below the fourth rib; discharge free; the permanent gum catheter taken out, but passed in daily.

24. Continues to improve; wound gradually closing. After this he slowly but regularly became convalescent, so as to render further reports unnecessary.

The case of Lord Beaumont is given at length, it being a remarkable instance of the strict and constant watching such cases require. He is now, at the end of fifteen years, in perfect health, and feels no inconvenience from the injury. Respiration is perfect on the left side, even at what must have been the part injured, and there is no reason to believe from auscultation that the lung adheres by its pleura to the wall of the chest.

Dr. Houghton, in his able article on Pneumothorax in "The Cyclopædia of Practical Medicine," declares the opinion to be unfounded which supposes that the presence of compressed air is necessary for the production of metallic tinkling. The great point to overcome is not, however, the opinion, but the fact, that the evacuation of the air destroys the sound, and that the restoration of compressed air reinduces it. If the fact is not so, the opinion is, of course, good for nothing; but, if the fact is admitted, I am indisposed to consider Dr. Houghton's objections valid. He advances two special instances, amongst other general ones, in support of his objection. The first is, that when drink is taken into a flatulent stomach, a metallic tinkling may be sometimes heard on coughing or speaking, and he concludes that the air is not compressed in a flatulent stomach—a conclusion I am not willing to admit; for, although the air might like to have it all its own way, and to distend the stomach and stretch the wall of the belly as much as it pleased, these two living parts may not like the stretching, and in turn may try to compress the air, which, in fact, I believe they do; hence the metallic tinkling. That a metallic tinkling is heard on auscultation, immediately after the fluid has been drawn off by the operation for empyema, I do not suspect to be the case, but that it may be heard, perhaps, after some time, when the fluid again secreted has encroached upon and compressed the air which replaced the fluid withdrawn, I do not doubt. The objection thus raised actually supports my hypothesis, which I value as nothing beyond the fact that with the evacuation of the air the metallic sound for the time ceases.

That an operation for the removal of the compressed air should only be palliative, when the disease has been caused by a tubercular abscess, cannot be doubted; more could not well be expected from it. (a) That the complaint is permanently removable—when the lung is only accidentally, and not constitutionally, diseased—the case of Lord Beaumont is a brilliant example. There is neither difficulty nor danger in such cases, in introducing a small trocar and canula for the evacuation of the air; and, if nothing should pass out, the little air which may pass in will soon be absorbed. In Lord Beaumont's case the air certainly passed out and, in all probability, passed in through the retained catheter, and it assuredly did no mischief. If I had not succeeded in his case with the sponge-tent, I was prepared with a small trocar and canula, through which I should have passed the elastic catheter—a practice to be pursued in other cases which may be similar, this being certainly at that time, if not at present, the only instance of a case of pneumo-thorax from a gunshot-wound of the lung terminating favourably, in consequence of the surgical evacuation of the compressing air.

(a) See the review in "The Edinburgh Medical Journal" for January, 1848, of the works of Messrs. Addison, Bourgery, Rainey, &c., "On the Anatomy of the Lung, and particularly of the Air-passages."

ORIGINAL CONTRIBUTIONS.

COMPARATIVE VIEW OF THE HEART AND OTHER ORGANS.

By W. H. BROWN, M.D., F.L.S., &c.

PAPER III.—THE BRAIN AND NERVOUS SYSTEM.

SUB-KINGDOM RADIATA.

Porifera.—The possession of a nervous system thus low in the scale of animated nature (if, indeed, it belong to it at all) is generally disputed by comparative anatomists. An opinion was formerly entertained—now pretty nearly discarded—that granular nervous matter was diffused or dispersed through the system of these beings, and of those of the superior class, polypifera,—a surmise which has, perhaps, been rather too summarily dismissed, inasmuch as it is difficult to conceive that so acute an amount of sensibility to impression as that manifested by some of the members of the latter class could exist without a nervous source; and no other arrangement would admit of the subdivision to which both these classes may be subjected without incurring destruction.

Polypifera.—In one of the higher families of this class, the actiniadæ, a faint sketch of a nervous system has been described by two sets of observers; one, however, describing it as a circle at the base of the animal supplying its muscles, another as an equally delicate annular cord embedded in a strong muscle surrounding the orifice of the stomach, and supplying the tentacula. It is necessarily a difficult question to solve in animals so constituted, but the latter is probably the more correct view of the two.

Acalephæ.—About as satisfactory as in the former case is an attempt to define the nervous development of the aquiferm creatures of this class. In the medusa, however, the enthusiastic Ehrenberg considers that he has detected a circular filament at the margin of the mantle distributing eight branches to the eight spots he is pleased to designate eyes, and likewise another circle round the entrance to the stomach, marked by four ganglia, sending filaments to the tentacula. Professor Grant has also assigned nervous functions to a delicate double circular fibre placed anterior to the stomach in the Beroe, and which he avers is endowed with eight ganglia, from each of which filaments pass to the body and to the tentacula. Other observers, however, have not been enabled to come to conclusions so satisfactory.

Echinodermata.—We now arrive at a more unequivocal development. In the asterias a nervous circle surrounds the mouth, having a ganglion opposite each ray, from which these filaments are given off,—one to traverse the ray, the other two to supply the central organs. A similar arrangement pertains in the echinus. In the absence of rays the filaments from the oral ring passing backwards to the digestive apparatus and forward to the dentals. The aspenculus exhibits an approximation to the nervous system of the articulata, inasmuch as two ganglia are placed anterior to the œsophagus, whence proceed filaments the entire length of the body, supplying it in their course, and directed down the abdominal surface.

Podifera and polypifera are now grouped together under the designation of acrita (confused), whilst echinodermata stands in that of nemaneura (filament-nerved). Acalephæ is one of the connecting links between the two divisions of this sub-kingdom. This arrangement was originally proposed by Professor Owen.

SUB-KINGDOM ARTICULATA.

Annelida.—The nervous system in this class consists of a two-lobed ganglion above the œsophagus (the supra-œsophageal), from either side of which, at the base, passes a column forming a circle round the œsophagus, and meeting in a ganglion below it (the sub-œsophageal); from this a great nervous trunk having a ganglion at every segment, runs the entire length of the body on its ventral aspect. The supra-œsophageal ganglia supplies the sensory nerves,

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those of the antennæ and ocelli; of the latter there are ten in the leech ranged round the upper portion of its sucking disc; a filament has likewise been detected in the leech, arising in this ganglion and passing down the back to the alimentary canal, which affords the first trace of a par vagum and sympathetic: the sub-œsophageal ganglion gives off the branches which supply the oral muscles, and in the leech, those of the formidable dental mechanism; the ventral ganglia give off two pairs of nerves to be distributed to their respective segments (the first supplying the ventral muscles, the second those of the side and back); these are the excito-motary: in the aphrodita a third pair are given off before these two, from ten or eleven of those ganglia nearest the head, which supply the respiratory apparatus.

Insecta.—We have the same type in this class as in the former, but in an advanced condition. The brain or supra-œsophageal ganglion is relatively of larger size; the optic nerve supplying the compound eye has become so large as almost to constitute a lobe, from the extremity of which the numerous branches to the ocelli are given off. The antennal nerve on either side is given off above this in conjunction with the par vagum, the two original cords of which immediately arch inwards and unite in a small central ganglion, whence proceeds the filament distributed to the alimentary canal. The ganglia of the ventral chain are generally eight in number: the first or sub-œsophageal ganglion (connected with the brain by lateral cords, as in the former case) supplies the lower parts of the month. "In the thorax we distinguish the second ventral ganglion, which, as it distributes branches to the first pair of legs, I have called the brachial ganglion. The third ventral ganglion, supplying amongst other parts the elytra, may be termed the elytral ganglion. The fourth ventral ganglion is distinct in the present species, and, supplying the nerves to the second or true wings, may be termed the alar ganglion. The fifth, sixth, and seventh, or first three ganglions in the abdomen, distribute nerves to as many large and moveable segments of that division of the trunk. The last ganglion is the largest, and its size is conformable with the bulk of the generative apparatus, upon which, on the rectum, and the modified terminal segments of the abdomen, its branches are expended."—(Owen.) Four small ganglia at the commencement of the œsophagus, supplying it and connected together by their filaments, constitute the sympathetic system. A distinct respiratory tract has been figured and described. From the beginning of the separation of the bifurcated inter-ganglionic columns, or conduits, Lyonnet says, "there descends a nerve, the extremity of which is enlarged a little above the succeeding ganglion, which sends off from the enlargement a transverse nerve to the right and to the left, to which I give the name of spinal rein (*bride épinière*). Of these transverse nerves there are ten pairs; they terminate chiefly in the stigmata and trachea, but send off small branches to the skin and to the dorsal vessel. These are the respiratory ganglia and nerves, and have been erroneously considered as the motor column and nerves." Advance of this type in this class consists in the concentration of the ventral ganglia: thus in the mantis the number of ventral ganglia is reduced to four—three thoracic, one abdominal; and in insects of the hemipterous order the whole system consists of but three ganglia, forming the brain, the sub-œsophageal ganglion, and a large rounded thoracic ganglion which supplies the whole of the body below the head.

Arachnida.—The nervous system in this class consists of a bilobed supra-œsophageal ganglion or brain, from which two short thick columns embrace the gullet, terminating in a considerable stellate ganglion beneath the stomach, whence two cords are continued to the abdomen, at the commencement of which they subdivide into four or five lines each, which supply the abdomen and its contents. The cephalic ganglion gives off anteriorly (upwards and forwards) the two long optic nerves; laterally two nerves to the mandibles, and posteriorly the stomato-gastric, "which form on each side a reticulate ganglion, which distributes filaments to the stomach." The sub-œsophageal ganglion, formed by the union of at least four pairs of ganglia, sends off branches to the palpi and legs. The nervous centres in spiders are confined entirely to the cephalo-thorax; but in the long-bodied scorpions, seven small ganglia are developed regularly along the median nervous cords, which supply the different segments, as in insects.

Crustacea.—Still we find the same type pertaining in this class which has characterized all belonging to the sub-kingdom articulata—a type which has obtained for it, in a more modern nomenclature, the more scientific appellation of homogangliata. We find it, too, in this class, passing through all the gradations of which it admits, from the distinctly double ventral cord, with its numerous and separate ganglia, to the perfect concentration of these into a single ganglion, whence nerves radiate to the entire system. Thus in the talitrus (sandhopper), one of the humblest members of the class, we find the supra-œsophageal mass or brain to consist of two separate ganglia, united by a short commissural cord; these give off the usual sensorial nerves to their respective sides. From these pass longitudinally the œsophageal cords, which terminate in two sub-œsophageal ganglia, united as in the former case, which furnish the nerves of the masticatory apparatus. From these a chain of nine ganglia are continued on either side, similarly connected, which supply their respective segments. The squilla mantis presents an advance on this arrangement, inasmuch as the ganglia of each segment have coalesced laterally, whilst the sub-œsophageal and two succeeding ganglia of the thorax have coalesced longitudinally, into a single ganglion, leaving but three additional ganglia in the thorax and six in the abdomen. The stomato-gastric, as indeed throughout the class, are given off from the œsophageal cords. In the pagurus, or hermit-crab, the thoracic ganglia have coalesced into three (inclusive of the sub-œsophageal), the central of which is the largest, and, with the third, supplies the feet; from the latter, two small, long cords pass to the anus, where they terminate in a small ganglion which supplies the muscles of the caudal plates. It is in the crab, however, that the greatest concentration is found, for here the thoracic and visceral ganglia are agglomerated into a single oval mass, which supplies the masticatory organs and those of locomotion. The cephalic ganglia (for the mass is really of plural composition, as will be evident), as in all other cases, supply the eyes and the antennæ, a branch from which latter now constitutes the auditory nerve.

Since the able investigations and observations of Mr. G. Newport directed inquiry into the subject, much attention has been devoted to the discovery of the respective tracts of the sensory and the motory functions in the class under consideration. The best elaborated opinion, however, conveying all that is really known on the subject, is expressed in the following paragraph from the surpassing lectures of our ablest philosopher in the science, Professor Owen:—"Three principal divisions of the nervous system of the crustacea may be defined, according to the views which I entertain of their functions. Thus, admitting from analogy that the supra-œsophageal ganglionic centre is that in which true sensation and volition reside, then those nervous filaments which are exclusively connected therewith, and some of which would seem to extend the whole length of the animal along the dorsal aspect of the ganglionic columns, would form with their ganglionic centre the true sensori-volitional system; whilst any other ganglions superadded to the abdominal columns, with the nervous filaments terminating in or originating from them, would constitute the system for the automatic reception and reflection of stimuli. The stomato-gastric nerves, connected partly with the brain and partly with the œsophageal columns, will form a third system analogous to the great sympathetic or organic nerves of the vertebrata."

SUB-KINGDOM MOLLUSCA.

Tunicata.—The low degree of vitality enjoyed by the creatures of this class endows them with well-nigh the humblest form of nervous development. Between the inlet and the outlet is to be found a single ganglion, whence filaments are given off to the circular muscular fibres of these orifices; branches likewise pass down longitudinally, supplying the respiratory tunic, and are reflected upon the œsophagus. Ganglia are spoken of as existing among the viscera, and constituting a sympathetic system; but this requires to be confirmed by further investigation than has yet been applied to it. The existence of cephalic ganglia, or brain, is altogether unheeded in these acephalous and (properly so called) senseless molluscs.

Conchifera.—The principal nervous centres in this sub-vitalized class consist in the most elevated genera of three pairs of ganglia (the second or central often constitute a single bilobed ganglion), the labial, the pedial, and the branchial. The first of these, or labial, best deserve the title of cephalic ganglia, from their position above the œsophagus and the distribution of their nerves; they are connected together by a short transverse cord; supply the labial processes, and send forward trunks to the anterior and backwards to the posterior adductor muscles. The pedial ganglia connect together branches from the latter trunk, at the base of the foot, and principally supply that member and the viscera. Whilst the branchial ganglia connect the posterior adductor trunks at that muscle, supply the branchiæ, that part of the mantle in its own immediate region, and by two large branches the posterior part of the tentacled margin of the latter, on which its ramifications anastomose with those of similar trunks given off from the labial ganglia. These supply the ocelli, ranged along the inner margin of the mantle in the pecten. The branchial are much the largest of the ganglia.

Gasteropoda.—Individuals low down in this class present us with but little advance on the conchiferous type. The cephalic ganglia at the sides of the œsophagus are connected by a commissural cord passing over it; from these ganglia pass two cords, terminating, as in the former case, in pedial and branchial ganglia, but now, however, in close proximity, and situated much higher up in the body of the animal. The cephalic ganglia supply the antennæ and ocelli, and likewise send downwards and forwards two filaments, each of which terminates in a ganglion (joined to its fellow by a delicate nervous loop) below the pharynx (the pharyngeal ganglia), which supplies this latter, the mouth, and the tongue. In the heliotis the pedial and branchial ganglia are concentrated into a single sub-œsophageal ganglion, connected by a double cord with the supra-œsophageal mass; from this the visceral, branchial, and muscular nerves radiate. In the onchidium the cerebral, pedial, and branchial ganglia have coalesced into a single supra-œsophageal mass, whence a ring is formed by a delicate filament round the œsophagus. The pharyngeal ganglia are united into one. In the slug and snail tribes the nervous centres consist of a supra and infra œsophageal mass, connected laterally by a triple nervous cord. From the former of these two masses are given the nerves of the tentacles and ocelli, and on each side two delicate filaments, which terminate in a small pair of stomato-gastric ganglia at the side of the œsophagus; from the sub-œsophageal mass are distributed nerves to the foot, and to the organs of respiration and circulation. In those species in which the cephalic ganglia are not in juxtaposition, the line of connection between them is a thick band of nervous matter, not a mere filament, as in other cases. To the labial or pharyngeal ganglia Professor Owen ascribes the residence of the olfactory sense; to the sub-œsophageal palpably belongs that of the acoustic faculty. We

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find then in this, as in other classes, and from class to class along the great scale, that advancement in development is invariably accompanied by concentration of the nervous centres.

Pteropoda.—The nervous centres in this class are all concentrated about the œsophagus; upon the superior portion of a ring surrounding which are developed two cerebral ganglia, supplying the sensory filaments; whilst to the inferior margin of the collar, laterally, are connected the pedial and branchial ganglia. From these are derived the filaments supplying the entire body.

Cephalopoda.—In this interesting class the principal nervous centres are not only confined to the head, but actually assume the dignity of an encephalon, inasmuch as they are protected more or less perfectly by a cartilaginous cranium (developed only inferiorly in the nautilus, but entirely, *i. e.*, over the whole mass, in the sepia officinalis). The same type holds good in this as in the former classes of the molluscous sub-kingdom, but with this advancement. The supra-œsophageal mass in the nautilus consists of a thick cord, terminated at each extremity by a ganglion, which is attached inferiorly, both anteriorly and posteriorly, to a ganglion which, stretching round the œsophagus and coalescing, form an anterior and a posterior sub-œsophageal ring. The cerebral mass supplies the mouth, and it is said the olfactory apparatus; its ganglia, the eyes. The anterior sub-œsophageal ring furnishes filaments to the tentacula; whilst the posterior sub-œsophageal ring sends off numerous flattened fibres to the shell-muscles, and two respiratory nerves which, forming a ganglion at the base of the gills, at their respective sides, distribute branches to these organs, and to the heart; likewise a plexus of delicate visceral nerves, connected with a small ganglion on the stomach. In the higher genus sepia, the supra-œsophageal mass has the form of a heart-shaped body, slightly indented into two halves by a line running from the base to the apex on its superior surface; to these laterally and inferiorly are attached the optic ganglia. Anteriorly two crura descend from the brain, and, passing round the œsophagus, meet in the anterior sub-œsophageal ganglion, which supplies the feet and tentacles as well as the infundibulum and acoustic apparatus; it likewise gives off two nerves which meet two others from the cephalic ganglion, and form together a ganglion above the pharynx which supplies the mouth. Posteriorly two crura descend similarly to the anterior, and form the posterior sub-œsophageal ganglion (connected laterally with the anterior), which, in place of sending numerous nerves, as in the œconomy of the nautilus, for the shell-muscles, gives off two large branches which form a ganglion immediately before supplying the mantle. In the long-bodied members of this class these nerves, from their parallel dorsal position, have very much the character of a rudimentary spinal column. The branchial nerves, arising between the origins of the pallial or mantle nerves, supply the branchia and heart, as in the nautilus. It is to be remarked that the nerves which supply the arms have ganglia distributed upon them immediately over their respective acetabula or suckers, so that the arrangement in each of these is not very dissimilar from that of the ventral columns of the homo-gangliata.

"We may regard" (remarks Professor Owen, instituting a comparison between the parts just considered and their analogues in the superior class, vertebrata) "the cordiform superior mass, which is principally in communication and co-exists with the large and complex eyes, as the homologue of the optic lobes. The smaller supra-œsophageal mass, anterior to the optic lobes in the octopus and some other cephalopods, may represent an olfactory lobe, or the rudiment of a true cerebrum. I have already indicated the parts (the lateral connecting bands of the infra and supra œsophageal masses) which seem to represent the crura of the cerebrum; they unite with that large sub-œsophageal nervous mass, which, since it gives origin to the brachial nerves, or the analogue of the fifth pair, to the acoustic and respiratory nerves, and to those two large moto-sensory columns which so obviously represent, by their structure, position, and distribution, the spinal chord of the vertebrata, must be regarded as the representative of the medulla oblongata: it is obviously the part of the nervous centre which is most intimately connected with the vitality of the animal, and which is, therefore, here, as in the higher animals, the deepest seated and best protected part of the nervous system."

From the unsymmetrical arrangement of the nervous system in the class under consideration, it has been proposed to substitute the term heteroganglia for that of mollusca.

SUB-KINGDOM VERTEBRATA.

Pisces.—We now arrive at a rudimentary form of that exalted type of a nervous system which attains perfection in ourselves. A brain protected by a skull and a dorsal nervous column, encased in a spine constituting the centres of the nervous influence—that is, as it is expressed, of animal life; whilst a distinct system presides over that of organic life—the sympathetic. The brain is very far from occupying the entire skull, as in ourselves; indeed it occupies but a comparatively small portion of it; the interspace between its lining, the pia mater, and that of the skull, the dura mater, being occupied by an ample development of cellular tissue filled with fluid. No arachnoid tunic exists. The cerebral mass consists of three pairs of lobes or ganglia succeeding each other, terminated by a single lobe, the cerebellum, and based upon the origin of the medulla spinalis—the medulla oblongata. The anterior and smallest pair of ganglions are the olfactory; the second and larger are those of the cerebral hemispheres, or organs of intelligence; whilst the third and largest are those whence the optic nerves originate—the optic ganglia. The cerebellum, or last link of the encephalic chain, is a cone-shaped body, with the apex directed backwards; it is not lobulated as in the superior classes, of which it is indeed little more than the representative of the processus vermiformis. The cerebral hemispheres present a perfectly unconvoluted surface, and, except in the sharks and rays, have no excavations or ventricles in their interior. From the inferior surface of the cephalic mass, the medulla oblongata, we have nerves given off almost identical with those of our own cranial system:—Thus, the third or motores oculorum, the fourth or pathetici, and the sixth or abducentes, are distributed principally to the muscles of the eye; the fifth or trifacial gives off an ophthalmic branch, distributed to the parts about the nose, a superior maxillary branch to the parts about the upper jaw, and an inferior maxillary branch to the parts about the lower jaw; the seventh supplies the auditory apparatus; whilst the eighth or respiratory gives off the glosso-pharyngeal to the branchial arch, fauces, and tongue, the par vagum, to the posterior branchiæ, pharynx, œsophagus, and stomach, and a spinal recurrent to the shoulder and swimming bladder. The distinct origins of the first and second cerebral nerves (the olfactory and the optic) have already been pointed out. The ninth or hypoglossal is wanting. The spinal cord consists of two parallel columns in juxtaposition, except at their origin, where they decussate, as it were, to form the œsophageal ring of the inferior classes, necessarily not needed in the inverted or dorsal position of the column now assumed. The triangular aperture occasioned by their separation, and which the cerebellum is not sufficiently large, in most instances, to cover entirely, constitutes the fourth ventricle. From this ventricle a canal runs through the spinal column, to some extent separating the two halves of which it is composed. The nerves on either side, given off for the supply of the body, originate by two roots, an anterior and a posterior; and on the latter, very close to its origin, is developed a minute ganglion: thus we acquire the distinct motor and sensory tracts of the highest classes. In the lower vermiform members of the class, as, for instance, the eel, the spinal column is of uniform diameter throughout its length; but, as we advance and acquire organs of locomotion, it acquires an increase of calibre, almost ganglionic, opposite the origin of these members. The sympathetic or ganglionic system, though minutely developed, assumes its position on either side of the vertebral column, supplies the viscera, forms plexuses about the larger vessels, and communicates with the cerebro-spinal system, as in the higher classes.

Reptilia.—The encephalon of this class makes but little advance on that of the former. The arrangement of its ganglia is precisely similar. The cerebral hemispheres have acquired, however, a relative increase of volume, which causes them slightly to fall back upon the optic ganglia; they are likewise connected together by an anterior and posterior commissure, between which is the third ventricle; their surface is still unconvoluted, but the interior of each is in all cases hollowed out into a large ventricular cavity, wherein are found the corpus striatum and the choroid plexus. The cerebellum is relatively smaller than in the former class; it is still unlobular. The cerebral nerves necessarily are, as nearly as possible, identical with those already described; it is to be remarked, however, that the optic nerves, very near to their origin, are bound together by a short commissure, from which they immediately decussate as in ourselves. The ninth, or hypoglossal, supplying the muscles of the tongue, is now distinctly emitted. The spinal nerves differ in no wise from those of fishes, or indeed from those of the classes above them; the same scheme being observable throughout; which remarks equally apply to the sympathetic system, with the reservation of increase of size of the ganglia as we ascend.

Aves.—The only advance to be noticed in the encephalon of birds is that of the increased development of the cerebral hemispheres, which now considerably overlap the optic ganglia and push them apart; they likewise entirely conceal the olfactory ganglia, the size of which has become considerably reduced. The cerebellum also has attained greatly increased dimensions—to the perfect closing in of the fourth ventricle. In no other respect is especial observation called for.

Mammalia.—Having now arrived at the summit of the scale, let us see how the various parts of the complicated mechanism already considered have been left by progressive development; and we may commence the review with the premises that, however tortured by scientific mysticism, the encephalon, even of the most exalted member of this class—the human being—consists of but the same simple primary elements as that of creatures of inferior status. The olfactory ganglia have dwindled into mere bulbous cords, and, instead of coming off, the most anterior of the mass appear to arise from the base of the succeeding pair of ganglia or cerebral hemispheres, the extraordinary development of which has so considerably overlapped them. The cerebral hemispheres not only overlap the olfactory ganglia anteriorly, but they likewise overlie the optic ganglia posteriorly, and high up in the class the cerebellum also. These hemispheres have become more intimately connected by an additional band of nnion passing between them, from before, behind, termed the corpus callosum, and by several minor bands associating the internal parts. As we ascend in the class, and intelligence becomes more characteristic, the cerebral hemispheres become virtually larger by folding in upon themselves, and so we have gyri, or convolutions, and sulci, or grooves. The optic ganglia, like the olfactory, are thrust inferiorly, their relative size considerably diminished, and their shape undergone transformation; for, instead of two plain spherical bodies, they are now, each one, marked by four prominences—the two anterior named nates, the two posterior testes. From their quadrifid appearance these ganglia are now designated the corpora quadrigemina. The nates give origin to the optic nerves. The cerebellum has now acquired considerably in-

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creased dimensions, not so we may say on its original type, for that consisted of nothing more than the processus vermiformis, and this has in reality diminished; but in the acquisition of two considerable lobes or hemispheres; a band of connection between which is established inferiorly in a broad prominent commissure, termed the pons varolii. At the posterior margin of the pons the medulla oblongata, or encephalic commencement of the medulla spinalis, takes its rise. This latter has now assumed the shape of a flattened cylinder, marked by a longitudinal depression or indentation, both anteriorly and posteriorly (exhibitive of the original distinctness of the columns), and two similar, though more superficial, equidistant lines on each side of the two described; thus marking the cord, as it were, into six columns. Its interior is described as being "composed of two hollow cylinders of white matter, placed side by side, and connected by a narrow white commissure; each cylinder being filled with grey substance, which is connected by a commissure of the same matter. The form of the grey substance, as observed in the section, is that of two half moons, placed back to back, and joined by a transverse band. The horns of the moons correspond to the sulci of origin of the anterior and posterior root of the nerves. The anterior horns do not quite reach the surface; but the posterior appear upon the surface and form a narrow grey line." (Wilson.) The nerves given off from this column for the supply of the body (generally about thirty pairs) have a double origin, an anterior or motor, and a posterior or sensitive, on which latter a ganglion is developed; these shortly unite into the single nerve. The sympathetic system consists of a series of well-defined ganglia, arranged on each side of the spinal column, supplying the viscera; forming plexuses about the large vessels, and communicating freely with, and apparently receiving fibres from, the nerves of both the other systems. We have, then, now arrived at the highest concentration of the nervous centres. The ganglia of special sense (olfactory and optic) sufficiently denote their functions. To the cerebral hemispheres belong the attributes of thought and control. The medulla oblongata is especially the origin of the respiratory function. The cerebellum seems to be in some way connected with the locomotive powers. Whilst the medulla spinalis is the source of that reflex power, so manifest and important lower down in the scale of creation, but which is, as has been well remarked, necessarily secondary to the superior intelligence of will.

The term myelencephala, expressive of the characteristics of brain and spinal marrow, has been proposed by Professor Owen as a substitute for the less expressive term, vertebrata.

In conformity with the plan adopted in my preceding papers, I shall now attempt to give a tabular view of the order of progression of the more important parts we have been considering. Such scales must necessarily be imperfect in the highest degree (and especially so in the present instance); but, whilst they are calculated to bring in serviceable review before the careful reader the more prominent particulars already dilated upon, I cannot conceive that the almost epigrammatic brevity with which they are necessarily drawn up can be at all calculated to mislead him.

KINGDOM ANIMALIA.

			Classes.	*Brain's Nervous System.*	
Sub-kingdom. Radiata.	Hæmato-neuria.	Acrita.	Porifera	Diffused molecules.	
			Polypifera	Delicate circle and rays.	
		Neuria.	Analepha	Similar; with supposed ganglia.	
			Echinodermata	Similar; with a definite ganglia at each ray.	
				Analogue of Cerebrum.	*Analogue of Medulla Spinalis.*
Sub-kingdom. Articulata.	Homo-ganglia.		Annelida	Bilobed reflex sensory ganglion (supra-œsophageal).	Chain of reflex motory ganglia—about twenty-one.
			Insecta	Similar; optic nerves originate from lobes.	Similar—about eight.
			Arachnida	Similar.	Single large sub-gastric ganglion and abdominal cords.
			Crustacea	Similar; lobes agglomerated.	Single large oval ganglion.
Sub-kingdom. Mollusca.	Hetero-ganglia.		Tunicata		Ganglion between inlet and outlet.
			Conchifera	Double ganglion connected by transverse cord, but semi-sensory.	Pedial and branchial ganglia.
			Gasteropoda	Ganglia agglomerated.	Single sub-œsophageal ganglionic mass.
			Pteropoda	Double ganglion on upper portion of œsophageal ring.	Ganglia on inferior portion of œsophageal ring.
			Cephalopoda	Encephalated cordate supra-œsophageal ganglion, and anterior sub-œsophageal ganglion.	Posterior sub-œsophageal ganglia dorsal trunk.
				Cerebrum.	*Medulla Spinalis.*
Sub-kingdom. Vertebrata.	Myelencephala.		Pisces	Encephalated three pairs of ganglia (olfactory, cerebral hemispheres, optic) cerebellum; medulla oblongata (nerves eight pairs).	Approximated double dorsal column in opime; nerves symmetrical, arising by double origin.
			Reptilia	Similar; cerebral hemispheres enlarged; lateral ventricles formed (nerves nine pairs).	Similar; columns more united.
			Aves	Similar; cerebral hemispheres enlarged; also cerebellum.	Similar.
			Mammalia	Cerebral hemispheres convoluted at maximum of development; olfactory and optic ganglia reduced to appendages on base of former.	Similar; column marked in to six lines.

APOTHECARIES' HALL.—Gentlemen admitted members on Thursday, March 9:—John Samuel Pearse, Gateshead; Edward William Plews; Prosper Felix Louis Napoleon De Lenne, Devonport; Charles William Bloxham, Hales Owen; and Edwin Thomas Watkins, Royal Navy.

THE PHYSIOGNOMY OF DISEASES OR SECRETIONS IN THEIR ASSIMILATIVE CHARACTERS.

By GEORGE COLES (Author of "A Popular Treatise on the Kidney," &c.), of the Middlesex Hospital.

(Continued from p. 388.)

In *hydrops pericardii* the countenance is assuredly anxious and distressed, than in mere effusion of the case; the orthopnœa is greater, the dyspnœa more active in the respiratory movements, there is more fulness and greater dulness over the pericardial region, than in the chronic forms of cardiac disease; whilst the sounds of this organ are distant and less marked to the ear; by the use of the stethoscope we may, moreover, pretty well judge of the extent of the effused fluid, and of the boundaries of the distended pericardium.

Whilst in hydrothorax an degree of the pleuræ, at which not unfrequently attends the former effusion, the orthopnœa is not only severe, but absolute dulness on percussion is so marked, and the auscultator's vocal sounds are so manifestly altered over the seat of the fluid, that a novice in the school of auscultation can easily attain to a knowledge of the diagnosis of this form of thoracic disease. Neither is the recognition of unmixed or mere emphysema difficulty. The barrelled chest, the clearness on percussion, the absence of a pure respiratory murmur, the hernia of the lung, already so often described, and above all, the strong physiognomical characters of this disease, are sufficient illustrations of the morbid changes of the lung that, I feel assured, if medical practitioners would only attend to these simple principles in diagnosis, emphysema would be at once easily recognised than it generally is. The changes in the pulmonary tissue, thereby superadded either dropsy of the lungs or of the pleuræ, or of both, and the case is rendered by more obscure, than the countenance is haggard, distressed, and dusky; the respiratory efforts are more laboured, and the auscultatory signs are more perplexing to the physician. If he depends on percussion, then the presence of fluid in the thorax masks the physical signs of emphysema; and I know of no decided test by which a physician is to ascertain that this complication of disease exists except by the use of the voice of the patient, and by that of the auscultator. The former test is a negative evidence, and the latter is a positive one. When the ear is placed over such a chest behind, and the patient is encouraged to talk, the sound of his voice, and the thrill of vibration of that sound, are neither of them heard nor felt by the operator's ear or hand. But, on the other hand, if the hepatophonus is placed over the same spot, the practitioner's voice becomes muffled and deadened, just as it does when he talks with his mouth surrounded by a wet blanket or a feather pillow. I am aware that these physical signs are also met with in empyema of the chest, but this presents no difficulty whatsoever, inasmuch as the rise, progress, and symptoms of the last-mentioned disease in no wise correspond to those of emphysema, coupled with fluid in the lungs and pleuræ, so that an observing mind will be at no loss to form a diagnosis between the two.

Emphysema pulmonum, or that condition of lung which is produced by the escape of air from the cells of the lung into the cellular membrane which connects these cells together, is usually one of the main features of disease in asthmatical patients. These individuals always exhibit the very opposite state of respiration to that of a person suffering from pneumonia or pleuritis.

The thorax in this disease is arched in every part; the whole set of respiratory muscles are in full play; the shoulders are prominently thrown forwards, the clavicles, as it were, buried behind them, and the diaphragm and abdominal muscles take an active part in the efforts of respiration; added to which, if the eye glances over the chest before and behind, whilst the trunk is erect, there will be a manifest and universal bulging of the ribs, so that the front of the thorax has rounded like a barrel; and this deformity is

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great on viewing the posterior parts of the chest, that a flat narrow board or ruler laid over the ribs, will leave a considerable space in the region of the spine, and show that this bony canal is considerably lower than the convex surface of the thorax.

More need not be said upon this branch of the subject, as this alteration in the parietes of the chest must be quite as palpable at one cursory glance as any other deviation of symmetry in the figure of the thorax from disease within its walls.

But one observation ought here to be made of a fact which will help to a decision on the nature of the disease before the ear is placed on the chest of such a patient. It is this: that if there is emphysema to any extent, and it has reached the upper lobes—for emphysema usually begins in the lower lobes, and spreads upwards—each act of coughing produces "hernia of the lung," so to speak, in that triangular space which is formed by the clavicles, sterno-cleido, and omo-hyoidei muscles. At this point, and at this point only of the thorax, we know that the pleura is wholly unprotected by muscle; and, as the lungs are jerked up by each distressing effort of hard coughing, the emphysematous lung and pleura are forced up into this triangular space, and may be seen as one distinct tumour.

This appearance alone has often enabled me to foretell my diagnosis of a pair of emphysematous lungs before I had even applied my ear to the chest.

As I have already stated, when treating of the morbid respirations in asthma and emphysema pulmonum, that the voice becomes altered, is absurd, shrill, and loud; and it may here be observed also, that such patients are usually very loquacious in the description of their complaints; there is a propensity in them to talk in long sentences. The reserved air in the emphysematous lungs, if one may so term this pent-up or extravasated fluid, enables them to do this. Expiration is not the chief distress which gives rise to dyspnœa, for such is a prolonged, and not a very laboured, effort; but it is the short and distressed effort to inspire which is the main feature in the dyspnœa of this class of patients: they have, in fact, more air in their lungs than they want, so that, if the two actions of respiration are watched, it will be seen that the expirations compared with inspirations are first to two.(a)

In œdema, or dropsy of the lung, the thorax presents to the eye but little difference from the foregoing changes as noticed in the outset, except that there is no hernia of the lung visible, nor so much convexity of the whole thorax as in emphysema. The eye gathers but little additional information from this change of structure beyond the former disease.

By dropsy of the lung is meant that fatal malady so often complicated with emphysema, in which, after protracted struggles of the respiratory organs, the whole capillary system of the lungs suddenly pours out fluid into the pulmonary cells, but more especially into the tissue connecting these cells together. It is not the engouement or serous infiltration of the first stage of pneumonia, but a thinner aqueous exudation into the cellular substance of the lung itself; for serous effusion from pneumonia proceeds from the inflammatory vessels which are spread over the vascular air-cells themselves, whilst this exudation is almost wholly from the exo-cellular vessels, and by its rapid accumulation it drowns the lungs, and renders them useless, and death ensues from apnœa.

Dropsy of the pleura, or hydrothorax, is simply an effusion of serous fluid from the pleuritic capillaries into the cavity of this membrane. You will find the patient usually sitting upright in bed, or preferring to do so, if he can conveniently, either propped up by pillows, a bed-chair, or otherwise choosing to sit up all night by the fire in an easy chair. As this disease is the sequel of some antecedent, though relative and serious morbid change in the respiratory organs, as the heart or lungs, so the eye of the practitioner gathers more information from observing the posture of the patient, than from any particular change in the symmetry of the external parietes of the chest. This state of breathing, called orthopnœa is always present in dropsy of the pleura, and, in addition to it, the lower parts of the chest are passive in respiration.

The attention of the reader should now be drawn to the main facts which are to be gathered from an ocular examination of the thorax and abdomen in three or four, at least, of the most formidable diseases of the respiratory organs. 1. Pneumonia, or pleuro-pneumonia. 2. Pleuritis. 3. Phthisis. 4. Emphysema, with or without dropsy of the lung.

In the first instance the surfaces of the air-cells are acutely inflamed; the air entering them is a source of irritation, and aggravates the patient's sufferings, therefore he is *unwilling* to admit it, at least no more than he is absolutely obliged to do.

In the second instance he is unwilling to do so, *not* because the air-cells are irritated thereby, but because the full expansion of the lung over the inflamed pleura distends this inflamed membrane, and thus increases his distress.

In the third case the patient is *unable* to expand his chest, and to allow a natural amount of air to pass in, because the solidification of the lungs on the one hand, and the firm adhesion of these organs to the walls of the chest on the other, render it impossible for him to inspire the same amount of air as a healthy individual does.

Whilst, in the fourth instance, the respired air is wasted by its escape from the ruptured air-cells, is spent over the interstitial cellular membrane connecting the air-cells together; so that, although the patient is both willing and able to respire more than an ordinary column of air, yet, by his struggling efforts to do so, it is manifest that little air is actually employed in oxygenizing the blood, and that his sufferings are increased by the lungs being kept permanently distended.

(To be continued.)

(a) The very opposite condition of voice, respiration, and manner of answering the questions put by the medical man, may be noticed in pneumonia, pleuro-pneumonia, and pleuritis, as contrasted with emphysema. The patient, in these diseases, fears to talk; the voice is subdued, as not much air is allowed to be thrown upon the larynx; in short, he has none to spare, we may say; and, as he attempts to answer your questions, there is an abrupt monosyllable or two uttered, and he stops before he has scarcely framed or uttered a small sentence. Nurses, the most experienced, cannot divest themselves of the notion that such patients are either peevish, obstinate, and are *resolved not* to answer; or else that they are deaf and cannot *hear* medical queries; or, lastly, that they are muddled (a phrase denoting with them incipient delirium), and cannot *understand* the questions. But, truly, neither of these suppositions is correct; and when nurses have begun to scold such patients for not answering the doctor's questions, especially in auscultating the lungs, when you desire to listen for ronal sounds, as egophony or bronchophony, I have usually insisted upon their being silent; have desired the patient to cough, and the lungs have thus refilled to a greater amount than before, and they have then been enabled to expend more breath, and so answer questions in a more prolonged manner.

WESTMINSTER HOSPITAL.

Reported by HENRY BUTLER, Esq., M.R.C.S.

CARIES OF THE TARSUS—CHOPART'S AMPUTATION OF THE FOOT.

George Harrison, aged eighteen, a tall, unhealthy-looking youth, was admitted into Mark Ward, under the care of Mr. Phillips, on the 24th of November, suffering from caries of the metatarsal and some of the tarsal bones.

He states that he had been losing health for some time before his admission, feeling very languid and unable to make any exertion. Nine weeks previous to his admission he had severe pain in the ankle, accompanied by swelling and redness; the pain was severe and stabbing, increased by motion, so as to prevent his walking.

Linseed-meal poultices were applied to the part during six weeks, in which time two or three small abscesses had made their way to the surface.

At present the anterior portion of the foot is much enlarged and reddened; there are numerous small fistulous openings over the upper surface of the foot, and on the inner side, leading down to the denuded bone; but on careful examination it did not appear to extend to the tibio-tarsal articulation; the soft parts in the neighbourhood are congested and infiltrated. His general health was attended to, and the soft parts restored to a more healthy condition.

A consultation was held, and upon examination it was evident that the caries extended to several of the metacarpal bones, and probably to the tarso-metatarsal articulation. It was, therefore, decided that a partial ampatation of the foot should be practised.

The operation of Chopart was performed by Mr. Phillips, while the patient was apparently in the gentleat sleep induced by chloroform. The parts were kept together by sutures, and straps were brought down from the calf of the leg, around the stump, and up the anterior part of the leg. The case went on without any unfavourable symptom; the ligatures came away on the twelfth day; the posterior flap was strapped firmly forwards, to prevent the extensors of the foot from pointing the stump downwards. Union took place regularly and continuously, and the boy improved rapidly in health. On the 24th of January, about six weeks after the operation, the stump had cicatrized firmly. There was not any tendency to drag down the anterior portion of the stump, and there was a good, firm, elastic cushion at the end of the stump.

UNIVERSITY COLLEGE HOSPITAL.

STRANGULATED FEMORAL HERNIA.—OPERATION. RECOVERY.

Rebecca L., aged sixty-seven years, admitted July 13, 1846, about six P.M., labouring under strangulated hernia; is a largely framed woman, of fair complexion, married, but had no children.

History.—Two years since, a hernial protrusion presented itself in the right groin; a truss was bought, but she would not wear it, as the bowel was not constantly down. About nine months back, another hernia was observed in the left groin: still, however, she could not be persuaded to take to her truss, and merely attended to the daily evacuation of the bowels. Six weeks ago, after a long walk, the bowel on the left side suddenly descended, and she was attacked with sickness, constipation, and violent pain in the part, which symptoms were relieved by rest and aperient medicine, the rupture going back spontaneously. A similar attack occurred three weeks afterwards, and a third about ten days since, with the same symptoms and mode of relief. Last Tuesday she walked from Islington, and was much fatigued; on the Thursday evening following, fell sick, and complained of great pain in the groins; some aperient medicine was taken, and as quickly rejected; the next morning these symptoms were aggravated, and in addition there were cramps in the legs, and pain in the chest and abdomen; matters continued thus until Saturday, when a surgeon was called in, who stated that he found the patient suffering from vomiting and much abdominal tenderness, was told that the bowels had acted the day before, but his attention was not directed to any hernial protrusion; prescribed some effervescing aperient, and four pills of colocynth, calomel, and opium, one to be taken every four hours until the bowels acted; hot fomentations to the abdo-

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men; two of the pills were retained, the third rejected. Visited her again in the afternoon, and, upon making more strict inquiry, discovered a femoral hernia in each groin, that on the right side being reducible, on the left only partially so; enemata of castor-oil and senna mixture were exhibited, and the bowels acted an hour afterwards. Fomentations to be continued; the taxis was employed, but without success.

July 12. Vomiting continued; bowels not acted; tenderness in hernia increased; general febrile disturbance. V.s. brachio ad ℥xij.; this produced partial syncope, after which the bowels acted, and again in the evening; when she felt easier. Taxis again unsuccessful.

13. Stercoraceous vomiting; cannot bear any pressure on hernia; much abdominal tenderness; at her own request was brought to the hospital.

State on Admission.—In the left groin is a small oval-shaped tumour, situated below, and resting partly upon, Poupart's ligament, its long diameter placed transversely; the neck can only be distinguished sinking into the saphenous opening after much careful manipulation. There is a good deal of tenderness in it when touched, as well as over the whole abdomen. The warm bath and taxis having again failed, Mr. Quain immediately proceeded with the operation, the steps of which I shall describe in the operator's own words:—"A crucial incision having been made through the integument and as much of the cellular membrane and fat beneath as could be pinched up with a fold of the skin, fat was still seen, and on dividing it enlarged glands were cut. After dividing a good thickness of these, I came upon a substance like omentum; this was fat over the sac, which is occasionally to be met with, and then a tumour projected forwards. It was pyramidal, or conical, and covered as usual by a thin membranous coat (fascia) devoid of fat. On dividing a thin layer of membrane, an ineffectual effort was made to return the hernia. The sac was laid open with great care; it was in actual contact with the intestine; there was none of that moisture over the intestine on separating it from the sac which is usual, even when actual liquid is not present. I have never seen the two in so complete contact. The woman became faint when the sac was opened; this is common. The bowel was much discoloured, more than brown; part of it was even much more so than the rest; it appeared as if thinned. I returned it into the abdomen, after cutting the stricture at the inner side of the hernia. The sac was thickened at the outer side; extravasated blood in a patch under part of it; the inner side was inflamed; this on account of manipulation in taxis."

After the operation the edges of the wound were brought together with a point or two of interrupted suture, and a compress dipped in cold water applied. Ordered—

℞. Hyd. chlorid., gr. iij.; pulv. opii, gr. j., ft. pil. statim sumend.

℞. Hyd. chlorid., gr. iij.; pulv. opii, gr. ½; ft. pil. 4tis horis sumend.

Twelve o'clock, P.M. Pulse 120, hard; bowels acted once; motion of a natural colour, but had indurated lumps in it.

14, four A.M. Slept a little; not much tenderness on pressing abdomen; bowels acted again.—Nine A.M. Pulse softer, 106; tongue dry, furred; complains of much thirst; abdomen not tender on slight pressure.—Twelve o'clock. Bowels acted again; liquid motion; pulse 104; skin soft and moist; respiration about fifteen in a minute; uneasiness, not pain, on pressing the abdomen.—Nine P.M. Sutures removed; little attempt at union of the wound; edges brought together with isinglass plaister; no pain in abdomen; bowels acted five times since; twelve liquid motions, with small pieces of fæcal matter.

15. Passed a restless night; delirious; bowels very much relaxed; two enemas of starch, with 3 ss. of tinct. opii in each, were administered, and retained a little while.—Ten A.M. Lies dosing on the back, with legs stretched out; pulse 160, full and soft; skin moist; no pain on pressing the abdomen, unless the pressure be firmly made; respirations easy, fifteen per minute; tongue covered with thick fur, which is dark in the centre, and pale at the edges; great thirst; bowels still very much relaxed; wound looking quiet. Ordered—

℞. Magn. ust., ʒj.; aq. puræ, ℥iiss.; tinct. opii, m. xxx. Capt. coch. iij. statim et rep. 4tis horis. To take beef-tea when thirsty.

Evening. Restless; has taken three doses of the mixture; bowels not so much relaxed.

16. Slept till half-past one this morning; since then has been wandering; bowels acted twice during the night.—Ten A.M. Pulse soft; tongue furred, as yesterday; great thirst; delirium, which consists of wandering in her mind and talking incoherently; but she is very sensible when spoken to, and knows everybody around her; can bear pressure on the abdomen; bowels more quiet; the wound has united at only a few points, and presents a dark slough at its base. Ordered to take a tablespoonful of brandy in water frequently.—Three P.M. Seems altogether more composed.

17. Better; passed the night well; bowels acted four times in the day, with loose motions; delirium only slight.

18. Better to-day; bowels acted only once; no delirium; continues taking strong beef-tea and brandy; thirst not so urgent.

19. Feels comfortable; slept well during the night; tongue cleaner; wound looking healthy; bowels not acted since yesterday; had an enema of gruel in the afternoon, which acted twice; in the evening an anodyne was given.

20. Passed a restless night; in other respects the same; cont. anodyne.

21. Passed a better night; complains of pain in the wound; bowels open; pulse 90, soft.

22. Passed a good night without the anodyne; tongue moist, cleaning; pulse 90; no pain on pressing abdomen; bowels acted once in the night; don't complain of much thirst; wound looking healthy; slough separating.

23. Feels better; passed a good night; no wandering; pulse 85, full; tongue getting clean; bowels regular; wound slough separated; looks healthy; suppuration free.

24. Going on well; eats a chop with relish.

26. Tongue quite clean; bowels regular; appetite good; wound healing.

29. Sits up during the day; wound dressed with red wash, and healing fast.

31. Doing well; wound healing favourably.

Aug. 12. In all respects well; wound nearly cicatrized; leaves the hospital to-day.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meeting of March 6; M. Pouillet in the Chair.

ANATOMY OF THE SPHENO-PALATINE GANGLION (G. OF MECKEL), BY M. GROS, ASSISTANT-DEMONSTRATOR OF THE FACULTY OF MEDICINE.

M. Gros asserts that the description of this ganglion, by Meckel, is replete with errors: in the first place, Meckel considers this intumescence of the fifth pair as analogous to the Gasserian ganglion, and, at the same time, as the prototype of the sympathetic ganglions—a contradictory assertion, which has thrown much confusion upon the subject. M. Gros shows that Meckel's ganglion, adhering in one point only to the naso-palatine filaments of the fifth pair, remains, however, always distinct from the latter, even to the naked eye. The origin of the mistake committed by Meckel resides in the fact that a portion of the organ, hitherto unknown, escaped his attention: this portion M. Gros denominates the orbital or orbito-cavernous portion, arising at the summit of the orbit, inside the superior maxillary nerve; this part emits from its circumference an immense number of filaments, destined to the orbit and to the cavernous sinus. Sixty may be counted in the horse, thirty in the ox, fifteen in man, ten in the monkey, eight in the dog, and four or five in the hare. It is to this portion that the ganglion owes its characters of independance. The other part, the ganglion of Meckel, properly speaking, emits grey filaments, which immediately join the white radiations of the fifth pair, or isolately proceed to the nares and velum palati. Such are the deductions in the description given by Meckel of this organ. But that anatomist, led astray by his imperfect knowledge of the ganglion, founded upon it a general theory of the sympathetic system. That theory consists in looking upon the sympathetic nerves as deriving their origin from the cerebro-spinal centres; an opinion which Petit, Bichat, and Müller have endeavoured to disprove.

ACADEMY OF MEDICINE.

Meeting of March 7; M. Royer Collard in the Chair.

The meeting was taken up with a paper, read by Prof. Bouillaud, "On the Localization of the Faculty of Language in the Anterior Lobes of the Brain." He endeavoured to show, by the observation of eighty cases, that all important morbid alterations of the anterior cerebral lobules produced constantly a lesion of speech, which might even consist in a total abolition of that faculty, and that the alterations circumscribed to other parts of the cerebrum have not a similar effect. He concluded that, whenever the faculty of language was more or less deeply modified by a disease of the brain, that disease might be localized in the anterior lobes of the visous, and that in such cases the application of the trephine for the removal of foreign bodies should be made in the frontal region in preference to any other.

A short and uninteresting debate ensued, and the meeting adjourned at five P.M.

LA CHARITÉ.

COMPLICATIONS OF GUNSHOT WOUNDS.—A CLINICAL LECTURE BY PROFESSOR VELPEAU.

(Concluded from page 398.)

The most frequent complications of gunshot wounds are—1, gangrene; 2, fractures; 3, hemorrhage; 4, strangulation; 5, infection.

We have already said something of fractures, and we will now draw a rapid sketch of the peculiarities of gangrene in the history of gunshot wounds.

Gangrene caused by these injuries may be primary or secondary; the former always exists, being inherent to the nature of the wound: it is characterized by the excessive contusion of the soft parts, and may vary in its degrees according to the depth at which the tissues are affected. Secondary gangrene is not a necessary consequence of the lesion; it may depend upon the nature of the injured parts, or upon the progress of subsequent inflammation. The secondary gangrene due to the nature of the injured organs may be produced by lesion of the bones, of the nerves, of vessels, or by crushing of the tissues. Thus, when a ball passes through a limb, and divides its principal artery, gangrene is almost an inevitable consequence, particularly if both the main artery and vein are injured. The laceration of the nerves is another cause of gangrene when the greater number of the nerves of a limb—of the arm, for instance—are divided. The diagnosis of gangrene is always easy, but it is not so to foresee its appearance; in some cases, indeed, that prevision is absolutely impossible. The prognosis of gangrene in a gunshot wound is more serious than that of a common injury. Spontaneous gangrene is, however, of a still more serious import, inasmuch as it is caused by internal maladies upon which the surgeon has little or no action.

The treatment of gangrene in the wounds which now occupy our attention consists in the removal of the mortified part. A great and important question here arises. Should the amputation be performed as soon as gangrene appears, or only after nature or art has arrested its progress? The surgeons who are of opinion that the limitation of gangrene should first take place, before any operation be instituted, say, in sup-

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port of their opinion, that, if amputation is resorted to before the specified time, the stump may also mortify, because the vessels are frequently obliterated above the wound at a height which cannot always be ascertained with precision, and also because the concussion, stupor, and general infection make it doubtful where the gangrene will stop. In order to solve the question properly in each case, it is necessary to consider the cause of mortification. If it has been occasioned by arterial disease, it is best to await spontaneous limitation; but if the gangrene be traumatic, if there be no reason to suppose the vessels diseased above the wound, it would be improper to lose any time. In general, therefore, it is better to amputate before limitation of gangrene, particularly if the mortification occupies the larger part of a limb; when, on the contrary, it has invaded only the fingers or toes, the surgeon may wait until nature has arrested its further progress.

From the 22nd of February to March 2, 1848, 568 wounded persons were admitted into the hospitals of Paris—viz., 461 men, 15 women, 92 soldiers; 48 men, 1 woman, and 12 soldiers have died.

Treatment of Strictures, by M. Amussat.—Although generally easy in simple cases, the treatment of strictures of the urethra is, on the contrary, attended with extreme difficulty, in cases where the obstacles to be overcome are numerous, or placed in different directions. The most experienced practitioners have frequently to struggle with the sometimes insurmountable difficulties, either to obviate a retention of urine brought on by a stricture, or to introduce even the finest bougie into the urethra, when the urine can still be passed, although in a small stream; and further, admitting that a thin bougie has been introduced with success, it is not always an easy matter to substitute a larger one in its place. M. Amussat, whose long experience of disease of the urinary organs gives much value to his suggestions, proposes a new mode of gradual dilatation, which he has employed successfully in several cases. The introduction of a common bougie being found impossible, M. Amussat endeavours to place in the urethra a very small elastic bougie, half a millimètre in diameter. The instrument being fixed permanently in the urethra, the urine escapes along its surface, and twenty-four hours after its application a second bougie of similar diameter is introduced into the passage; others are successfully added, so as to form a fasciculus of five or six, which do not by any means impede the excretion of urine; after some little time this can be removed, and be replaced by a middle-sized instrument, equal in diameter to the removed fasciculus of smaller bougies.

D. M'Carthy, D.M.P.

Absorption of Chyle.—Dr. E. H. Weber says the lacteals, or chyle-vessels, which are situated within the walls of the intestines in man, send off to the intestinal villi branches which ramify within these structures, and form a network the meshes of which are as small as those of the capillary network, while the diameter of the smaller tubes of the lacteal network is also as small as that of the capillaries. A similar lacteal network was observed in the same spaces between the intestinal villi in a case in which the lacteals were fully distended with chyle. But there could not be perceived any of these vessels on the walls of Lieberkuhn follicles, the lacteals existing in the spaces between the villi, as well as in the villi themselves; it is not to the villi alone, but also to the interspaces, that the function of chyle absorption belongs. And, from their absence from the walls of the Lieberkuhn follicles, these follicles possess no share in the process of absorption. Inasmuch as the mucous membrane, with its rich supply of blood-vessels and lacteals, is covered by a non-vascular layer of substance, the epithelium; and since this layer of epithelium, according to some physiologists, is cast off whenever digestion is carried on, and certainly often admits of being easily separated from the vascular part of the mucous membrane after death, it has been supposed that, during the absorption of chyle, this separation of epithelium always takes place, and that the lacteals are thus brought into immediate relation with the materials contained in the intestines. But this view is erroneous, for there has been found the lacteals filled with chyle in cases in which the intestinal mucous membrane was still covered by epithelium, and in which, therefore, the chyle must have passed through the epithelium in order to reach the lacteals. Moreover, during the absorption of chyle, the cylindrical cells of the intestinal epithelium undergo changes in form and colour: in rabbits they become swollen, and contain globules of chyle; and in man the intestinal epithelium, besides cylindrical or prismatic cells, possesses in its deeper layers other round cells, many of which are filled with an opaque white material, others with a clear transparent fluid; from which it would appear that there are different cells, possessing the property of absorbing different kinds of fluids. Besides the epithelial cells on the surface of the villi, other round absorbing cells are found within the substance of these structures; and these also appear to be of two different kinds, some being filled with white opaque contents, others with a transparent oily-looking fluid.

Serous Effusion in the Theca of the Medulla Spinalis.—Dr. H. T. Child relates the case of a young man, aged twenty-six, who had been exposed to a severe rain, and on the afternoon of the next day was attacked with paralysis of the lower extremities, so suddenly that he fell over while engaged at business. When seen at nine A.M., the paralysis had extended so as to partially interfere with the motions of the upper extremities; sensation appeared natural; his pulse was about eighty; there was no apparent tenderness on pressure along the spine; he had passed his urine freely within an hour; his speech was somewhat affected. A cathartic of extract of colocynth combined with powdered cantharides was ordered. At three P.M. it was found that he had lost the power of deglutition; his pulse was now eighty-eight, and rather oppressed. Free cupping was directed along the spine, and a blister to the nape of the neck; in the evening the pulse was 100; he had swallowed nothing, but was profusely salivated, and had been all day, the cause of which it was impossible to trace. The bladder was emptied by means of a catheter, and an enema of infusion of senna and tincture of aloes to be administered. In the morning of the next day his pulse was ninety-six; he had had his bowels evacuated by the enema, and had passed his urine; his mind was somewhat affected; sensation natural; constant restlessness and desire to be moved. Sixteen ounces of blood to be taken, by cups to the spine, and a repetition of the enema. At one o'clock P.M., his pulse was 120; skin hot and dry. A tube being passed into his stomach, a gill of milk and water was injected; he said he felt refreshed; from this time he sank rapidly; his breathing became hurried and stertorous, and at seven P.M., he died, about fifty hours after the first appearance of disease. A *post-mortem* examination was made thirty-six hours after death. The spinal column in the lumbar region was found filled with transparent serum; the theca was somewhat softened, and there was atrophy of the medulla spinalis. The condition of the brain and other viscera was not ascertained.

On the Treatment of Young Permanent Teeth, that require Plugging.—Dr. F. B. Flagg says, in the course of a series of microscopic observations upon the human teeth, in which he had been engaged for more than two years past, he was early led to observe the striking difference of density in the bony portions of teeth of different ages; particularly in their more external parts, as the bone approaches either toward the enamel or cortex. In two preparations, consisting of transverse sections at the neck, one, an adult tooth, the other of the age of eight years, he had observed this peculiar development most decidedly illustrated. A section of the older tooth being prepared sufficiently to allow the light to pass between its pores, when subjected to a powerful lens, presented a uniformly fibrous or striated appearance, from the edge bordering upon the chamber of the nervous pulp, quite to its outer surface, with the slight exception of the cortex at this part of the tooth; that being beautifully defined by its clustering stars. A similar section of the young permanent molar, although it appeared equally opaque as the other at its inner portion, yet it gradually became less so, for about two-thirds of the way towards its outer circumference, when all its fibrous appearance was lost, and the external third became perfectly translucent. Much difficulty has been experienced in the practice even of our best operators in regard to saving these early permanent teeth. It is not unfrequently necessary to fill the same cavity twice or three times, at periods varying from one to three years, before we can confidently pronounce it to be an operation lasting and permanently useful. The probable reason for this is the change which is constantly progressing within the tooth, necessary to its growth and full development; the capillary tubes in the immediate vicinity of the cavity so filled, evidently acting to its detriment. It is reasonable to suppose that this condition may be superinduced by vital action being in contact with a foreign substance. Be this as it may, the following practice, having been pursued with uniform success, is recommended to others desirous of benefiting the condition of young sufferers in this respect. After removing every particle of decay, as much time must be devoted to burnishing the bony surface as is necessary to close the mouths of the tubuli opening into the cavity. This should be done with a smooth instrument, capable of reaching every portion of exposed bone, and with sufficient strength to cause the bone to present under the instrument somewhat the feeling of enamel; then wipe dry, and fill full, solid, and finish.

A Case of Ovarian Tumour.—Dr. A. Channing states the case of a woman, married, and had children, who was troubled with a tumour, filling most of the lower part of the abdomen; it was unequal in its outline, as if composed of many tumours. It was felt in the vagina, and so far filling it as to press the neck of the womb firmly against the symphysis, giving much trouble in passing urine. The uterine periodical function continued. Much suffering attended this disease. At times acute inflammatory attacks. The health had sunk, emaciation had occurred, the situation of the patient seemed hopeless. In its treatment, constant efforts were made to sustain the patient, while means were used to keep inflammatory processes in check, and to prevent increase of the tumour. Leeches, vesication, iodine ointment, hydriodate internally, sol. muriate of lime, &c., were among the means employed. At length a new symptom showed itself, which was the precursor of recovery. An involuntary and copious liquid discharge took place from the rectum. Some of it was collected in a vessel and examined. It was a perfectly transparent, dense, gelatinous liquid, very adhesive, and having a distinct albuminous odour. There was not the least trace of fæcal smell in it at any time. The discharge went on; the tumour grew less; the pains ceased. She regained appetite, strength, flesh, and is now well. Is not this case of some interest in this regard, that it shows how a disease of the ovary, consisting of a fluid deposit, and threatening life, may disappear, and recovery happen, where opportunity is offered for a constant discharge of the fluid as it forms. The sac or sacs thus have an opportunity to contract. New processes occur in them from exposure to the air, and at length the sac disappears. What is done by a rude surgery, the pulling away or cutting away the sac, or removal of the tumour by excision, is done by a gentler and wiser hand, and recovery

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follows. May not the ovary be punctured through the rectum or vagina, and the natural surgery be thus in some sort imitated?

Obliteration of the Vagina.—Dr. Dickson, of South Carolina, says he has seen three instances of this condition of the female parts. One was an old African woman, who could give no history of the affair at all. She had a stone in the bladder, the irritation of which gave the first occasion for discovering the fact. There was a very small opening, just sufficient to allow the insertion of a probe, which it was necessary to introduce frequently, to remove small urinary concretions or calculi, which presented themselves. She was upwards of ninety years old when first seen, and lived to be near a hundred; and, as she was always relieved by the probe, was not a subject for lithotomy. The second was an old lady, often attacked by suppression of urine, but free from any calculous deposit. The labia had, in this case, as in the preceding, united so perfectly that there was not left any trace of a vulva, except a mere elevated ridge—a sort of raphe—in the perineum. The opening which communicated with the bladder only admitted a probe or very small bougie. She had suffered from difficult labour, in which the parts had undergone much injury from unskilful handling, followed by long and severe inflammation. The third was a most unfortunate instance, resulting, in a beautiful young married woman, from inflammation of the womb and its appendages, after a protracted first labour. The obstruction here occurred about an inch and a half within the vagina, and was exceedingly firm and unyielding to the touch, seeming fibro-cartilaginous. I advised waiting till menstruation should be attempted, in the hope that the projection of some portion of the obstructing tissue might direct where an opening could be made with safety. But, although there are sufficient reasons to believe that the ovaria did not partake in the disorganisation and derangement inflicted, yet years have elapsed without any such effort as I have alluded to.

Dropsy after Scarlatina.—Mr. Gosse remarks the great similarity existing between scarlatinal dropsy and morbus Brightii, and the apparent identity of their causes, as far as the functional derangement of the skin is concerned. Scarlatina frequently lays the foundation of albuminuria; and in such cases, upon a *post-mortem* examination, the appearances exactly resemble those attending renal anasarca, viz., a mottled and contracted kidney. Whether the function of the kidney is suspended by congestion of the vessels, or the presence of an adventitious deposit, the immediate effect is the same; but, as one is permanent and the other may be only temporary, an important distinction is thus created between the two conditions. That the analogy exists in the early stages is highly probable, and at this period capable of remedy. The indications of treatment are to relieve the congested state of the kidneys, to carry off the superfluous fluid, and to restore a free and healthy action to the skin. The first object is effected by local depletion, by cupping or leeches to the loins; the second, through the medium of the mucous membrane of the intestinal canal, the administration of hydragogue cathartics; whilst, to promote a free action of the skin, warm baths are beneficial, assisted by small and frequent doses of tartar emetic, which possesses the double advantage of promoting perspiration and aiding depletion, by lessening the force of the heart's action. Diuretics are to be avoided, as tending to aggravate the evil. When active disease has ceased in the kidneys, which will be indicated by the appearance of the urine, or even before all traces of albumen have ceased, tonics are very beneficial, particularly the haust. ferri sesquichl. Confinement to bed and flannel clothing indispensable.

Polypus Uteri.—Dr. Thomas Mitchell, master of the South-Eastern Lying-in Hospital, Dublin, remarks, that the operations in use for the extirpation of polypi are torsion, excision, and the ligature. The first method is by no means applicable to all cases; and although it has been held that a similar treatment for polypus uteri, as for polypus nasi, was useful under the supposition that they were similar affections (which supposition has been found to be erroneous, it may be of importance to inquire in what cases it is of use, and where it is not only inapplicable, but injurious; and first, those cases in which it is of use. It will occasionally happen, that the practitioner will be consulted for leucorrhœal discharge, attended with more or less of the symptoms of ulceration of the neck of the uterus. On examining with the finger, per vaginam, a number of small soft tumours will be felt; but occasionally, from their tenacity and softness, these little vesicles will fail of being detected by the finger, but are easily seen on introducing the speculum. These small polypi may be quickly got rid of by torsion; nor is it likely that their removal will be followed by much hemorrhage; should the surfaces, however, bleed much, they may be touched with the solid nitrate of silver, which will speedily arrest it. It is only in these soft polypi that the plan by torsion is safe; as independent of the likelihood of causing inversion, there is a considerable risk of tearing away a part of the uterus itself. Excision has been employed extensively, on the Continent, by Dupuytren and others, and with much success: nor does it appear that the operations were followed by the serious amount of hemorrhage so much dreaded. The ligature, however, is not only safer, but applicable to almost every case in which excision could be employed. In very large polypi, after the application of the ligature, it is often of essential service to excise the tumour, which would otherwise occupy a considerable length of time before coming away, and thus prove injurious to the health of the patient; and cases may happen where pregnancy is complicated with polypus, which may also require excision; but the ligature is preferable. In using the ligature, the plan of fixing the wires to its ends is most valuable, and it need not be impressed upon practitioners the necessity for applying the noose as close to the bulbous part of the tumour as possible, lest the portion of the uterus be encircled by it. This point is well urged by Gooch, who also says, that the part of the pedicle attached to the uterus afterwards falls off, in the same manner that the funis separates from the umbilicus of the child after birth. If the ligature be properly applied, in the great majority of cases no pain will be felt; but it is thought that, in every case where pain is felt, that a part of the uterus must necessarily be strangled, and that the ligature ought be loosened, or, if necessary, removed. As to the latter practice of loosening the ligature, no one could question its utility; but there may be considerable pain felt, although no portion of the uterus is touched; it is true that the polypus contains no nerves, and therefore, is insensible; but every one is aware that, as soon as the ligature is tightened, the tumour becomes congested and swollen, owing to the free exit of the fluids being checked by the ligature; the blood coming to the tumour is also arrested; both which causes, acting upon so sensitive an organ as the uterus, may give rise to pain in the hypogastrium. Numerous cases are on record where the patient has bled from peritonitis, almost immediately after the ligature has been applied; but in those cases, doubtless, the uterus was injured. The practitioner, however, ought to be on his guard, and if he find that the pain continues after the application of a warm stupet to the abdomen, and using the catheter if necessary, he ought at once to loosen the ligature; and, when tightening the cord, he should recollect that this may be necessary, and be careful not to pass both ends over the projecting screws attached to Lauady's windlass, but merely to fasten one to the eye at the extremity of the instrument, and tighten with the other: he can then easily slacken it as much as he wishes—a thing very difficult to accomplish when both are tightened.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

CASE OF COMPOUND FRACTURE OF THE INTERNAL CONDYLE OF THE FEMUR, LAYING OPEN THE KNEE-JOINT, COMPLICATED WITH A TRANSVERSE FRACTURE OF THE LOWER THIRD OF THE SAME BONE.

By W. P. Brookes, Esq., Surgeon to the Cheltenham Hospital.

The subject of this injury was a boy aged eleven years and a half. The accident occurred in 1845: whilst the boy was in the act of getting up behind a coach, he fell, and the left leg and thigh got entangled between the spokes of the hind wheel whilst in motion. On examining the limb, the author found a compound fracture of the femur, extending obliquely downwards through the external condyle, which was movable with the lower portion, projecting through a wound in the popliteal space. The leg was twisted inwards, much hemorrhage had taken place, and the patient was in a state of collapse. On further examination, the capsular ligament was found to be lacerated, and synovia escaped—the wound in the popliteal space being as large as a five-shilling piece. There was also a simple fracture of the lower third of the same thigh bone. When the boy rallied, amputation was proposed and urged as the only chance of saving life; but the father refused to sanction the operation. The limb was, therefore, adjusted, and the natural position maintained, as well as the circumstances would admit of, by a long splint, extending from the hip to the ankle, and a concave one on the inner side of the thigh. For some time the constitutional disturbance was very considerable, but it gradually subsided. At the end of the sixth week the splints were removed, and the fractures were found to be firmly united. The lad has recovered the entire use of the limb, on which he can bear his whole weight, and he can bend the knee-joint at right angles. There is no perceptible difference in length between the two limbs. The author concluded with some remarks upon the rarity of recovery after so severe an injury, and considered that the case he had narrated should act as a practical lesson to the surgeon to trust more to the *medicatrix naturæ*.

Mr. Charles Hawkins recollected a case somewhat similar, that was brought, some years since, to St. George's Hospital. The patient was a boy, who, whilst riding behind a cab, got his leg between the spokes of the wheel, by which the limb was extensively torn and injured. On examination, a large wound was found in the popliteal space, from which the end of the femur protruded. All efforts at reduction were unavailing, and the limb was amputated. The joint was found uninjured, the bone having been torn from its epiphysis. He believed that a similar case had occurred in the practice of Mr. White, at the Westminster Hospital.

Mr. Brooke said, that, in the case which was under Mr. White's care, the bone protruded in front. The extremity of the protruded bone was sawn off, and the parts put in apposition. The limb was saved by this proceeding. The joint was uninjured.

ON PETIT'S OPERATION FOR THE RELIEF OF STRANGULATED HERNIA.

By James Luke, Esq., Surgeon to the London and St. Luke's Hospitals, &c.

The object of the author in this communication was to place before the profession the result of his experience in operating for strangulated hernia, without opening the sac. He remarked that, though experience was the only test by which the relative merits of this and the ordinary operation could be decided, the subject was encompassed by many obstacles, such as the impossibility of obtaining exactly parallel cases, the importance of not mixing the observations of different surgeons, or judging from isolated cases. To obviate these difficulties and sources of fallacy, the author has yielded up the results of his experience on the subject of Petit's operation, which is the only mode of operating he

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has adopted since the year 1841, as an ordinary practice. Being unable to supply from his own case-book the result of cases operated on by opening the sac, the author appealed to the experience of others, referring especially to statistical details given by M. Textor, Mr. South, and M. Malgaigne, collected at the London Hospital, and from the British Journals generally, which gave a return of mortality of from one-third to more than one-half. Where the taxis is successful, similar statistics prove that a fatal result is very rare. The conclusion which seems naturally to flow from these facts is, that operative interference should be deferred, and the taxis pursued as long as it offers any prospect of a successful issue—an inference, however, which the author considers to be fallacious and mischievous in its tendency, as involving a rife source of procrastination, which in itself is the too frequent cause of non-success attending the operation." This assertion is borne out by statistical details of cases operated on at different periods, after the establishment of symptoms of strangulation. The author then proceeded to explain that the desideratum appeared to be, the introduction of an operation by which the taxis would be aided, but without incurring the risk attending the ordinary operation, by exposure of the contents of the hernial sac; and these objects he considered to be fulfilled by Petit's operation. Inclusive of selected cases occurring between 1841 and 1847, the author stated that he had attempted the performance of Petit's operation in eighty-two instances, which, with four exceptions, likewise comprised all the cases that had come under his care since 1841. Of this number the operation was completed, without opening the sac, in fifty-seven. In twenty-five it was necessary to open the sac to complete a reduction of the hernial contents—the opening varying in extent from half an inch to one inch and a quarter. With respect to the mortality amongst these patients—of the fifty-seven in whom the sac remained unopened, seven died; of the twenty-five in whom the sac was opened, eight died. The author considered, however, that, for statistical purposes, it was preferable to exclude the selected cases (twenty-six in number), together with four other patients, of whom three were considered moribund at the time the operation was performed, and the fourth died of secondary stricture, six weeks afterwards. Of the remaining fifty-two patients, the sac was opened in twenty-one, of which three died, and not opened in thirty-two, of which two died. Of the cases in which the sac was opened, in ten the strangulation of the contents had existed, before the operation was performed, under twenty-four hours, of which number one died; in eight, above forty-eight hours, of which one died. Of the unopened cases, the strangulation had existed in thirteen under twenty-four hours, of which not one died; in eleven, under forty-six hours, of which one died. The author considered it important that the small size of the opening made into the sac, in the former class of cases, should be borne in mind, as it doubtless had an important influence in diminishing the ratio of mortality attached to this mode of operating. He then passed on to further details relating to the above cases, and the reasons for opening the sac, and stated that, of the fifty-two instances cited, twenty-nine were femoral, twenty inguinal, and three were umbilical hernia. He further pointed out the conclusion, from an analysis of the foregoing cases, that Petit's operation has proved most successful in the femoral form of hernia. In cases of inguinal hernia, the author limits his incision to a longitudinal division of the skin and fascia over the neck of the sac, of which cut the seat of stricture should be the centre. He then partially incises or scarifies the neck of the sac (if the seat of stricture, as it usually is), so as only partially to divide it, and so that it shall yield to the subsequent application of the taxis. In femoral hernia, he considers it very desirable to avoid, as much as possible, interfering with the tumour in conducting the operation, and, therefore, recommends that a similar proceeding should be adopted—the centre of the perpendicular incision in this case being between the upper part of the tumour and the abdominal surface. Poupart's ligament is thus reached by carrying the finger from above downwards, and the stricture is divided on a director, introduced into the femoral ring. The operation advocated by the author is not considered by him to be so applicable in umbilical hernia, except where it is of small dimensions. The author concluded by noticing and combating the various objections which have been raised to Petit's operation, and by insisting on its value, apart from other considerations, as holding out inducement to surgeons to proceed with less delay to the performance of the operation, as he considered that procrastination, arising from the dread of having recourse to the more severe operative interference ordinarily adopted, was in itself (as already remarked) a rife cause of the mortality which unhappily has too generally attended these cases.

REVIEWS.

Contributions to the Pathology and Practice of Surgery. By James Syme, F.R.S.E., &c. Edinburgh: Sutherland and Knox, Princes-street. P. 336. 1848.

Mr. Syme's recent translation to the surgeoncy of University College Hospital, vacant by the death of Mr. Liston, has made his name increasingly known to the English medical profession. His appointment was, doubtless, the result of the reputation which he had acquired as a surgeon and teacher in the northern capital. Here he had long flourished, and in various ways had contributed to the literature of his profession. One of his last efforts as an author is the work before us, which treats upon some practical points of surgery. It is not altogether a new production, as most of the articles have appeared at different times in various medical periodicals. The increased experience of the author, however, has enabled him to enrich the work with much new matter, so that those who had opportunities of reading the several articles as they successively appeared in the journals will feel an interest in again perusing them "revised," and, where it was thought necessary, "corrected."

The work is made up of thirty-one articles relating to subjects which the author hopes may, to most practitioners, be satisfactory to see fully stated, and which, perhaps, have till now only reached them through the imperfect and perverting channels of "compendiums or manuals," the parents no less than the offspring of mediocrity. In the first section Mr. Syme claims the discovery of rendering caoutchouc soluble, and, so far back as 1818, he sent a letter for insertion in "The Annals of Philosophy," relating to "a valuable substance which may be obtained from coal-tar."

In the article on "Gangrena Senilis," Mr. Syme opposes the old-fashioned method of treatment by "warming, invigorating, stimulating, and resisting putrefaction," which Mr. Pott informs us was the whole plan of the chirurgic treatment of this disease in his day, and which has continued in vogue to the present time. Our author remarks—"The tendency to mortification in this form of disease leads practitioners to the employment of invigorating measures. And I have uniformly observed that, whether the patient was stimulated by an additional allowance of food and wine, or was permitted merely to continue his ordinary diet, the sloughing action prevailed in opposition to every sort of soothing application that could be tried locally. But when the starving plan was adopted, and the patient restricted to vegetable articles of support, the redness has quickly disappeared, the pain has gradually decreased, and the sloughs, ceasing to extend, have been detached from a subjacent healing surface of granulation, which before long formed a sound cicatrix. The only means employed on such occasions, in addition to the vegetable regimen, have been linseed poultices, and the muriate of morphia given freely, either solid or in solution, so long as the nocturnal pains continued. It may be added, that no inconvenience has ever been sustained, to my knowledge, either from adopting the spare system or resuming the ordinary one, even when the age of the patient was beyond eighty years." The part affected is to be covered with a poultice, or a thick covering of cotton or wool—the patient being kept in a horizontal position. The solution of muriate of morphia should be given in doses of thirty drops from two to four times a day, or more freely if this should be found necessary for the relief of pain; if pain be absent, a moderate quantity of the soothing agent should still be prescribed, as it excites a powerful and most beneficial influence in restoring the healthy action.

In the formation of new bone, upon which important subject Mr. Syme has a chapter, he recognises the ossific power of the periosteum. In order to verify his opinion he exposed the radius of a dog, and removed a portion of the periosteum. The bone of the other leg was also laid bare, and a similar piece removed, but without the periosteum, which was detached and left quite entire. Six weeks afterwards the dog was destroyed. On examining the bones it was found that in the one from which a portion had been taken, together with the periosteum, the extremities were extended towards each other in a conical form, with a deficiency of bone between them, and in its place a small band of tough ligamentous texture. In the other, where the periosteum had been allowed to remain, there was a compact mass of bone, not only occupying the space left by the portion removed, but rather exceeding it. On repeating the experiment, the same results were observed. Two other experiments afforded decisive results as to the power of the periosteum to form new bone, independently of any assistance from the old one.

Ulcers of the leg are divided into the indolent or callous, the varicose, and the mercurial. The following are the author's remarks upon their characteristics and treatment:—

"The depressed surface and thick elevated edges, which characterise the callous ulcer, depend upon a swollen state of the limb, not soft and yielding like that of ordinary œdematous effusion, but of firm brawny consistence. It proceeds from the continued irritation of the sore, usually aggravated by occasional attacks of inflammation, and is, therefore, apt to attend, in a greater or less degree, the other sorts of ulceration which occur in the same part of the body, so as, in a corresponding measure, to confuse their distinctive features and diagnosis.

"Twenty years ago, the treatment of callous ulcers was believed to have been rendered perfect by combining the modes of management advocated by Messrs. Baynton and Whately: the former of whom encircled the limb, for the extent of an inch or two above and below the sore, with straps of adhesive plaster; while, by the latter, a roller was applied from the toes to the knee for the purpose of affording general support. This process, from the expense of materials and the attention requisite for their proper employment, is hardly within reach of that rank which chiefly suffer from the disease, except in hospital practice, where cases of this kind, from their monotonous features, slow progress, and proneness to relapse, are admitted with reluctance. So far, therefore, as poor people were concerned, there was in general no efficient remedy available for the relief of callous ulcers.

"In 1829, I proposed a different plan of treatment, which has now stood the test of sixteen years' trial in most parts of the world, and may, I think, be regarded in every point of view as preferable to the other. This was to apply a large blister over the sore and neighbouring swelled part of the limb, which has the effect of speedily dispersing the subcutaneous induration and thickening, so as to relax the integuments, and thus remove the obstacle opposed to healing

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action. In the course of a short time, seldom exceeding a few days after the blister has been applied, the surface of the ulcer, however deep it may have been, is found to be on a level with that of the surrounding skin, not, of course, through any process of reproduction, or filling up, but merely from the removal of interstitial effusion, allowing the integuments to descend from the position to which they had been elevated, as may be readily ascertained by measuring the circumference of the limb, before and after it has undergone the effect of blistering. But, along with this change of form, the ulcer, in other respects, no less speedily acquires the characters of a healing sore, assuming a florid colour, affording a moderate discharge of purulent matter, and presenting a granulating surface with surrounding margin of citatrizing pellicle. No subsequent treatment beyond the attention requisite for ensuring quiet and cleanliness is needed; and recovery is completed, not only more quickly, but with much less tendency to relapse, than when accomplished by other means.

"The facility, rapidity, economy, and lasting effect of this treatment, seem to give it a decided advantage over the other methods in use; and, so far as I am aware, no one who has tried the plan ever afterwards hesitated to employ it in preference to any other. In order to derive the full amount of benefit which the practice affords, it must be carried fairly into effect; and, with this view, the principle upon which it is founded should be distinctly understood. I still entertain the opinion originally expressed, that the blisters act beneficially by inducing a process of absorption. The enlargement of the limb being of secondary formation, and resulting from the continued irritation of a sore allowed to remain unhealed through neglect or improper treatment, when once established, prevents the contraction of granulating action, by which alone solutions of continuity, not within reach of union by simple adhesion, admit of reparation. Pressure, the horizontal posture, and all other means that tend to remove the obstacle thus presented, will promote the patient's recovery. But of all the means that can be employed for this purpose, blisters appear to be the most efficient, and should, therefore, be employed for the remedy, not only of the purely indolent or callous ulcer, but of other kinds, which, in addition to their own peculiar characters, show evidence of complication with indurated enlargement of the limb. From this condition, it is hardly necessary to mention that the œdematous swelling of weakness and impeded circulation must be distinguished.

"With regard to the varicose ulcer, I have merely to state that my opinion is not in favour of aiming at what is called the 'radical cure,' by obstruction of the vein or veins concerned. The ligature of Sir Everard Home, the incision of Sir Benjamin Brodie, and the caustic potass of Mr. Mayo, have been succeeded by the much more sure, safe, and effectual method of Velpeau, who accomplishes the object of obliteration by passing a pin through the skin under the vessel, and then tying a thread tightly round the included part. I have frequently practised this procedure, and never met with any bad consequences from doing so; but am nearly satisfied, from what has fallen within my observation, that the operation is barren of good effects in permanently remedying the tendency to ulceration. If this should prove to be the case, it will be matter of less regret, on account of the improvements which have been made in conducting the palliative treatment, especially by the contrivance of elastic bandages and supports, much more convenient than those formerly in use; and by means of which, after the sores are healed, patients may be rendered not only comfortable, but pretty secure against relapse. The 'black wash' has long seemed to me the best application for promoting cicatrization of the ulcer. If it comes under treatment in an inflamed or irritated state, poultices should be employed in the first instance, and, if the depressed surface and thick edges denote a complication of the callous condition, blistering will be proper instead of such relaxing means.

"The mercurial ulcer of the legs, or that which proceeds from the injurious influence of mercury upon peculiar constitutions of the system, occurs in two different forms, being either superficial and confined to the integuments, with their subjacent cellular texture, or deeply seated in the periosteum and surface of the bone. The former is preceded by flattened indurations of the skin, which, after slowly suppurating, discharge their contents by different apertures that communicate together, so as to produce an irregular ulcerated surface, with burrowing sinuses. The latter generally occupies the shin, and is recognised by its firm connection with the bone, which appears enlarged and irregular, either from really being so, or from the deceptive thickening of its periosteum.

"The superficial mercurial sore was formerly treated more by internal than external remedies; and, like the other effects of mercury co-operating with venereal poison upon unsound constitutions, being regarded as the legitimate offspring of syphilis, received, under the title of antidote, a fresh supply of the poison which had given rise to it. The changes immediately attending this most mistaken and mischievous practice, being usually beneficial so far as existing symptoms were concerned, tended to confirm the delusion, which too frequently led the patient, by progressive steps of weakness, emaciation, and disease, to his grave. The enlightened views of the late Dr. Thomson gave Edinburgh a distinguished place in reforming this department of medicine; and though the comparatively slow progress of improvement in the capitals of England and Ireland may still, perhaps, tolerate the administration of mercury for the ulcer in question, it was long since abandoned in this school, and succeeded by treatment of a local kind. This was destruction of the textures concerned by application of the caustic potass, which, at once depriving them of vitality, reduces the parts surrounding and uniting the ulcers to a state of slough, which separates in due time under the employment of poultices, and presents a healing surface of granulations.

"This procedure was certainly efficient, but very painful, and often required repetition, before recovery could be completed. It, therefore, readily gave place to the more recent introduction of iodine, as a corrective of the constitutional derangement which gives rise to ulcers of the kind under consideration, as well as to other so-called syphilitic symptoms. Small doses of the hydriodate of potass, such as two grains, three times a day, administered in simple watery solution, and without any sarsaparilla—of which I never prescribed a particle, either solid or fluid, in hospital practice—quickly affords the relief desired, with no assistance, except the application of lint moistened with water, or a diluted solution of sulphate of copper, and occasional blistering, especially if there be much thickening and induration.

"The deep-seated form of mercurial ulcer which affects the periosteum and surface of the bone has been, and I fear still is, in some parts of the world, the subject of more unwarrantable and hurtful practice than almost any other surgical ailment, although it admits of treatment peculiarly safe, speedy, and effectual. This is merely the application of blisters over the whole extent of enlargement, followed by the use of simple lotions and gentle pressure, while the hydriodate of potass is administered internally.

"At no very distant period this form of ulcer, being attributed to the direct effect of syphilis, was considered a warrant for repeated courses of mercury, and long-continued drenching with sarsaparilla, with benefit, it may have been, to the apothecary's pocket, but with what loss to the patient's health may be imagined, now that mercury is known to be the principal source of the evil it was employed to remedy. The local treatment, also, of those days was hurtful. In the first place, by opening, through means of incisions or caustic, abscesses of the periosteum, which readily admit of absorption, under the same management that proves useful after ulceration has taken place; and, secondly, by confounding the rough surface of bone so exposed with that most obstinate of diseases, caries. Under this erroneous impression, operations, no less severe than unnecessary, were performed. I have seen the choffer bristling with cauteries carried into the operating theatre, while unfortunate shin-bones were rasped and chiselled, preparatory to the burning thought requisite for their remedy. I have also known cases, which had resisted the prolonged horrors of these rough and frequently repeated proceedings, yield at once to the application of blisters.

"But there is reason to fear that operations still more severe, and, if possible, still less warranted, have been performed on account of chronic swellings affecting the periosteum and bone, through the proposal of Sir Benjamin Brodie to trepan the tibia for the discharge of matter pent up in its cancellated texture. The symptoms of this abscess, as described by that gentleman, are enlargement towards one extremity of the bone, pain more or less severe, usually remitting and recurring with increased intensity at variable intervals, induration and adhesion of the integument to the periosteum, tenderness under pressure, especially at particular points; in short, as he remarks with regard to one of his cases, 'all the symptoms of chronic periostitis.' Now, if the two conditions are thus so similar, it is plain that the one which admits of remedy by the use of gentle means may be mistaken for the other, in which, it is alleged, nothing can afford relief except making an aperture by the trephine for the escape of matter. Several patients, accordingly, have come under my care, after being advised in London to allow their tibias to be trepanned, and recovered completely without undergoing any operation. Indeed, Sir Benjamin Brodie says, that, 'even if you are mistaken in your diagnosis, no harm can arise from the operation. Nay, it is a question whether good may not arise, under certain circumstances, from taking away a piece of bone when it is affected with chronic inflammation even though there be no abscess.' And he illustrates this view by relating a case in which recovery followed the boring of a hole through the humerus in search of matter, without any being found. But, with all deference to an authority so justly respected, I must protest against the licence thus afforded to practise an unnecessary, painful, and, as I believe experience would show, dangerous operation; especially as the affection, admitting of remedy by the use of gentle means, is so much more common than chronic abscess in the tibia. I have for many years been looking for this disease, but hitherto without success; and, though not at all disposed to question the reality of such an occurrence, I feel entitled to regard its absence from the field of observation submitted to me as a proof that it must be a rare event in the practice of surgery."

Obstinate sinuses are met with most frequently in the region of the pelvis. After opening abscesses depending on carious verbetræ, or caries of the hip-joint, the sinuses which remain are incurable; and this has led to the opinion that little can be advantageously done for any sinus so situated. These sinuses, however, depend sometimes not on caries, but on death of bone, which, exfoliating in some part of the pelvis, far from the surface, causes constant irritation by the presence of the loose portion; hence, in the treatment of all sinuses in this part of the body, not apparently proceeding from caries, exfoliations must be searched after, and removed if found to exist.

In the treatment of incised wounds no attempt should be made in the first instance to close the orifice completely; pressure should be directed to the bottom, and blood should not be allowed to crust over the lips, as it confines serous discharges, and prevents union. The orifice should be wiped and kept dry as long as it exudes any moisture. To accomplish these objects the cut edges should be retained in contact by stitches,

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in preference to adhesive plaster. Some employ stitches and plaster together, but this is objectionable; for plasters, acting only on the surface, tend to close the lips, or turn them inwards, while they not only effect no deep pressure, but render the parts more loose, and disposed for the formation of sinuses, while stitches, closely put, may always be rendered equivalent to the effect required. A little gaping at the edges at first is not hurtful, as it ensures a thorough discharge, and may be rectified as soon as adhesion begins. Long-complicated bandages, which cannot be tightened or slackened in part, or removed without disturbing the patient, are not advisable.

Compresses laid along the sides of the wound will easily effect pressure by very simple means, independently of long circular rollers. For wounds of the trunk, nothing can be more convenient than a broad piece of linen, long enough to cross a little below the breast, and having its two ends torn longitudinally into three or four portions, any one of which may be tightened or slackened as occasion requires, while the whole may be thrown back at a moment's notice. A similar bandage, but smaller, will answer equally well for wounds of the extremities. For stumps, a roller is put on as usual, from above downwards, until it has come within a few inches of the stump; then a few narrow strips of cloth are fastened on each side, which are tied across the face of the stump. Dry lint must be applied over the wound as often as the least moisture is perceived.

For wounds of the mouth penetrating through the cheek or lips, and in penetrating wounds of the trunk or joints, the raw surfaces may be at once accurately brought together at their external edges by the interrupted or twisted suture, without any risk of subsequent separation by fluid effused between them. But in wounds opening upon only one surface, and more especially when of considerable depth, or situated in parts opposed to accurate coaptation, the dressing should be applied rather to compress the sides of the cavity than to close its orifice. Sponges first moistened and then squeezed, are convenient when the textures are so situated as to impede the efficient action of pressure. These have been found useful after removing tumours from the upper or lower triangle of the neck, in the neighbourhood of the parotid gland or clavicle. In amputations of the ankle-joint, great advantage is derived from a hollow sponge, sufficiently large to receive and contain the stump.

In the article on "Excision of the Shoulder-joint," a case is recorded where disease had existed for seven years, rendering the arm entirely useless, embittering the patient's life, and at last threatening to destroy it. Excision of the diseased bone restored the patient to perfect health. The difficulty of the operation depends in a great measure upon the manner in which the flaps are formed. Mr. Syme's method is as follows:—"The patient being seated in a chair, I made a perpendicular incision from the acromion through the middle of the deltoid, extending nearly to its insertion, and traversing one of the old sinuses. Introducing my finger into the opening thus made, I felt that the disease was chiefly, if not entirely, confined to the head of the humerus; and, therefore, cutting in a semilunar direction, backwards and upwards, from the lower extremity of the first incision, I formed a large flap from the external or scapular portion of the deltoid, which, being held up, exposed the joint so far that I was able to insulate the head of the bone by means of my finger, and then to detach the scapular muscles from their connections with their tuberosities, when, the arm being brought forwards, I easily thrust out the head of the humerus, and sawed it off without any injury to the soft parts."

Amputation at the ankle-joint, instead of the operation near the knee, is preferred by Mr. Syme when practicable, because the risk of life will be smaller, a more comfortable stump will be afforded, and the limb will be more seemly and useful for support and progress in motion. The best instrument for performing the operation is a large bistoury, or small amputating knife, with a blade about four inches long. There is no occasion for a tourniquet, as the vessels can be commanded by grasping the ankle. The incisions across the instep and sole of the foot should be curved, with the convexity forwards, and exactly opposite each other. A line drawn round the foot, midway between the head of the fifth metatarsal bone and the malleolus externus, will show their extent anteriorly, and they should meet a little way further back, opposite the malleolar projections of the tibia and fibula. Care must be used to avoid the posterior tibial artery before it divides into the plantar branches, as in two cases where this occurred there was a partial sloughing of the flap. If the joint is sound the malleolar processes are removed by cutting pliers; but if the articulating surfaces of the tibia and fibula be diseased, a little portion of these bones are to be sawn off. The edges of the wound are then stitched together and lightly dressed. The stump has a bulbous shape, conical in form on the inferior surface, and having for its apex the thick integument which covered the heel.

In amputation of the thigh, though our author formerly advocated the flap operation, his opinion is now changed, and he now prefers the circular incision, when amputation can be performed at the lower third of the thigh. Yet at higher parts of the limb he still recommends the flap.

Mr. Syme is a strong opponent of pressure for the cure of popliteal aneurism, and he rather sharply remarks—"So long as it is my sincere persuasion that ligature of the artery is preferable to pressure, I shall deem it my duty to pursue this method, though it may not, perhaps, be the best adapted for the lowest capacity of surgical practice."

Fungus of the testicle is regarded as merely an extreme degree of exuberant granulation, or "proud flesh." This suggested to our author the idea that the fungus might be made to retrace its steps, through absorption of the white substance and gradual approximation of the brown, and that the granulating materials of the surface might thus be enabled to complete the healing process. The soundness of these principles was tested on two patients in the hospital. In one, the fungous excrescence from the testicle was about the size of a filbert. Around this an incision was made, extending upwards and downwards, so as to give it an elliptical form. The integuments were then separated on each side, and brought over the growth, where they were retained by three stitches. The scrotum was supported by plasters and bandages. The wound eventually cicatrized.

In bursal swelling of the wrist and palm of the hand the local peculiarity concerned in causing the obstinacy which marks these cures being the constriction caused by the annular ligament, preventing the portion of bursal sac corresponding to it, and the subjacent tendons, from undergoing the healing process, the following practice was adopted in the cure of a girl affected with this complaint:—A free incision from the wrist into the palm of the hand was made, dividing the annular ligament. This gave vent to a quantity of glairy fluid, with many small, flat, cartilaginous-looking bodies, and exposed to view the flexor tendons, separated and surrounded by thickened bursal membrane. The cavity was filled with dry lint, supported by a bandage. Care was afterwards taken to prevent protrusion of the tendons, by drawing the edges of the wound together and applying a compress over the seat of the annular ligament. No unpleasant symptoms followed, and in a few weeks the wound healed.

In the article on "Dislocation of the Shoulder and Hip Joint," Mr. Syme remarks that the means employed for reducing dislocation of the shoulder must be varied according to circumstances. Within a few hours after the injury, reductions may be effected without assistance; by placing one hand on the acromion, and then, having bent the forearm to a right angle, suddenly drawing the elbow backwards, so as at the same time to rotate the hand outwards. In dislocation of the hip-joint, the extending force may act either upon the ankle or above the knee; the preference should be given, however, to extension above the knee. In regard to the comparative frequency of the different dislocations to which the hip-joint is liable, Sir A. Cooper has stated their respective numbers in twenty cases that had fallen under his own observation,—on the dorsum illi, twelve; into the ischiatic notch, five; into the foramen ovale, two; and on the pubis, one: in Mr. Syme's practice the proportion is almost the same.

The article on "Disarticulation of the Clavicle from the Sternum" we give in full, as the operation has not hitherto been practised in this country:—

"In the beginning of May last I was asked by Dr. Combe to see a gentleman in Leith, between thirty and forty years of age, who had, for about two years, suffered from a tumour of the clavicle. It was of an oval form, as if resulting from a general expansion of the bone, and extended from the sternal articulation to within a short distance of the acromion, possessed a very firm consistence, and was occasionally the seat of painful sensations. During the period of its existence the patient had had occasion to travel round the world, and in his progress obtained many different opinions respecting the disease, with no less various advice as to its treatment. At the advanced stage when it came under my observation, the case seemed free from any obscurity either as to its nature or the course requisite for its remedy. There was obviously a morbid growth affecting the bone throughout its whole thickness, and admitting of removal only by excision of the clavicle.

"On the 13th I performed the operation in the presence of Dr. Combe, with the assistance of Drs. Duncan and Mackenzie. The patient being seated on a chair, an incision was made along the whole extent of the bone, and a second at its sternal extremity, extending upwards and downwards at right angles to it.

"Having reflected the flaps, I divided the muscular attachments, and ascertained the precise limit of the disease towards the acromion, which it so nearly reached that the easiest way of proceeding would have been to separate the bones at their junction. But thinking that the object would be equally effectually attained by division of the clavicle, with less injury to the connections of the shoulder, I sawed the bone through, so as to leave about an inch of its extremity. The clavicle was next forcibly pulled outwards by means of strong forceps, while its remaining attachments were carefully separated towards the sternum, until nothing remained but the ligaments of the joint, which I then divided so as to complete the disarticulation. Three small vessels were tied, and the wound was dressed as usual.

"Union by the first intention took place through nearly the whole extent of incision, and the patient recovered with so little disturbance, either of a local or general kind, that he was able to leave his bedroom before the end of a week. Complete cicatrization was delayed at the acromial extremity of the wound by the separation of small particles from the bone, apparently in consequence of the injury it had received from the saw. But this did not prevent the patient, in the course of a few weeks, from proceeding to Wales, where he intended to reside, and whence he writes that the wound is quite healed, and the arm getting strong and useful. As I fully expected that the absence of the clavicle would have occasioned considerable deformity and want of power, it was an agreeable surprise to see that hardly any observable alteration in appearance resulted from the operation.

"The only part of the operation in the slightest degree difficult or embarrassing was in separating the large articular surface of the bone from its connections, where the vicinity of the pleura and venous trunk rendered extreme caution requisite."

The following remarks occur in reference

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to contractile or irritable stricture of the urethra :—

"Although the distinction between spasmodic and organic strictures, or, in other words, between the semblance and reality of contraction, has been long established in surgical pathology, the latter of these conditions was not supposed to vary except in degree and situation. The treatment, therefore, did not seem to require any diversity of procedure, and in this country most practitioners, preferring the plan of dilatation by bougies, employed them upon all occasions. But, however efficiently strictures of the urethra might in general be thus treated, no surgeon could employ the practice to any considerable extent, without encountering embarrassing cases that presented more than usual difficulty, or even baffled every effort to accomplish recovery. I do not here allude so much to the mere tightness of contraction, and difficulty consequently experienced in passing a small instrument through the stricture, as to the unyielding disposition manifested by the constricted canal, and its tendency to contract, perhaps even more closely than before, after being partially or completely dilated. One other feature of such obstinate cases of great importance to notice is, the strong and general sympathy of the system with every change taking place in the local disease; whence rigors and febrile attacks, leading to various derangements in different parts of the body more or less intimately connected with the part originally affected, are apt to result from attempts even of the most gentle kind to pass instruments into the bladder. Some constitutional disturbance, as that which occasions arthritic symptoms, would sometimes appear to be the cause of this particular state of stricture; and a local irritation, such as that of urinary concretions, is certainly adequate to produce the same effect, since all the features of excessive obstinacy and irritability are occasionally presented by stricture, in patients suffering from stone, and disappear at once as soon as it is removed. But, independently of either the one or the other of these influences, the peculiar condition of stricture to which I wish to direct attention may exist in its most perfect form, and is then found to constitute one of the most vexatious subjects of treatment so long as it is combated by the means in ordinary use. The patient, in vain expectation of relief, is apt to require in succession the assistance of many different practitioners, each of whom, supposing that the previous want of success has depended upon deficiency of skill or care, proceeds to a repetition of the dilating process, destined to afford only a similar disappointment, or the more serious consequences already mentioned as not unusual under such circumstances."

There is a case recorded in the last article of recovery after rupture of the urinary bladder by external violence, in reference to which Mr. Syme remarks :—"If the rupture takes place above or within the reflection of the peritoneum, there cannot be the slightest chance of escape. But if the rent is at the anterior part, so as to discharge the contents of the bladder by a sudden gush into the cellular substance, and condense it in such a way that merely the portion in contact with the urine is deprived of life, it appears that the patient may be saved by timely incisions."

The work manifests close and persevering observation, accompanied with sound judgment.

A Manual of Pharmacy for the Student of Veterinary Medicine. By W. J. T. Morton, Lecturer on Veterinary Materia Medica. Fourth Edition. London: Longman and Co., Paternoster-row. 1847. Pp. 302.

This little volume is especially addressed to practitioners of the veterinary art, and it is evident that it has been held by them in repute, as it has now reached its fourth edition. The materia medica presents nothing new to the medical practitioner, the drugs and chemicals being principally those which are found in the "Pharmacopœia" of the London College of Physicians. The doses and manner of administering the various preparations to the horse are given, and the decompositions of the chemical substances are also noted. Those persons for whom it is especially intended will find it a useful book of reference.

THE MEDICAL TIMES.

SATURDAY, MARCH 18, 1848.

THE "PERFECTION" OF THE LEICESTER INFIRMARY.

Experience is a teacher whose instructions ought to be valued above all others; we are accustomed, however, not to give them that supreme attention which is their due. The administration of our public charitable institutions has been marked by many defects, and some of these have been prominently exhibited to the public view. It has been the misfortune of hospitals, especially, to have fallen into disgrace in consequence of mismanagement, and yet the governors of these institutions appear blind to their own defects. That information which the past affords seems lost upon them, and consequently they adopt a policy which is bringing upon them an increased amount of public reprobation.

It has been our painful duty to have to rebuke some very grievous sins of hospital functionaries, and we have done so with the hope that a word in season would not be lost upon them. It is not long since we admonished the governors of the Leicester Infirmary for entertaining too high an opinion of themselves, as many of these worthy gentlemen informed the public that the institution under their management was a model of perfection. Whether they seriously entertained this notion, or only made the assertion in order that they might procure a few additional subscribers, we will not venture now to determine. Most unfortunately, however, for them, circumstances have since occurred which show that this institution is as badly managed as any public hospital for the reception of the sick poor in the United Kingdom.

Within the last nine or ten days a complaint has been made to the weekly board, that the nurses were in the habit of making a profit by providing tea and tea-utensils for the patients; and a committee has been appointed to make inquiry into the circumstances. We have not a very high opinion of the efficiency of these charitable tribunals to reform the evils which are brought under their notice; they rarely sift thoroughly the matters of which they professedly take cognizance; and the consequence is, that they fail to accomplish that amount of good which is necessary to ensure the prosperity of eleemosynary establishments. Probably, the nurses of the Leicester Infirmary may have a verdict passed in their favour, and they will be permitted to exercise, for the time to come, their important vocation. But, if the charges are proven, we know that, in exacting money from the friends of the patients under their care, they have only fallen into the sin which besets persons engaged in a similar calling in many of the hospitals in the metropolis. Nurse-craft is particularly dangerous to the pockets of patients and the credit of medical officers. The sisterhood is characterized by an invincible love of gin and mammon; and the sick poor in hospital, who are unable to satisfy to some extent their cravings, receive oftentimes sorry treatment at their hands. The very office seems to engender this love, and to put the members upon the best means of avoiding detection when they have levied contributions from their patients. In many hospitals smuggling is daily practised for the benefit of the nurses, and not frequently are the sick allowed, *sub rosa*, to take a little improper food or drink, in order that the aforesaid functionaries may be benefited either in stomach or pocket. No hospital servants require a stricter watch than these, and any dereliction of duty ought certainly to meet with a severe punishment.

The Leicester Infirmary is also charged with having had of late but a very indifferent supply of soap and towels. In these days, when baths and washhouses are becoming fashionable, it is rather singular that places for the reception of the sick should exhibit so little regard for clean skins and well-washed linen. Water and washing-women must certainly be at a discount at Norwich and Leicester, and we would seriously advise all sanitary reformers in their future labours not to overlook the hospitals of our country. We imagine, from what has recently transpired, that they would make some very important discoveries; and we have no doubt that a very useful body of old ladies who superintend the washtubs would most readily afford valuable information. Should the example of Norwich and Leicester be extensively followed, their craft will certainly be in danger; and it will be a sad policy in them to speedily raise the cry of "Great is Diana of the Ephesians."

It is matter of lamentation, also, that this infirmary, which boasted of its "perfection," should also within the last fortnight have had a patient under its roof who is said to have died without having been seen by the proper medical officer. Dr. Noble brought forward the case before a meeting of the governors. A poor man of the name of Groocock entered the hospital last month, with the consent of the medical gentleman who attended him, to undergo an operation. The patient was received on a Tuesday, but did not see his surgeon. On Friday he became much worse. On Saturday he was so ill that he expected to die, and he wished to leave the infirmary. His wife called upon the medical officer on that day to represent to him how ill her husband was, but he was not visited by him. The disease was intestinal, and the diet given to the patient was such as had been forbidden by his former medical adviser. The sick man remonstrated with the nurse about taking cheese, meat, and ale; but the reply was, that he must continue to take the diet, as it was to force a passage. On Saturday night the man was taken home, his former surgeon sent for, who applied some remedies which gave him a little relief; but such was the accumulation in the intestinal canal, that on Monday the walls gave way, and death ensued.

It is rather singular that the surgeon under whose care the man was placed when he entered the hospital should not have seen him during the time he was an inmate, for it appears that so little did business press heavily upon the medical officer, he on one occasion strolled into the room of his colleague, where he staid about twenty minutes. The house-surgeon ought, in no case, to supersede the superior professional functionaries; and it is their duty, when they visit the

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hospital to see the new patients. If this plan had been adopted at Leicester, the report would not have been raised that "bread, cheese, and ale," in endeavouring to force a passage through the bowels of poor Gropcock, and not being able to escape per anum, burst through the parietes of the canal. For the credit of the infirmary, however, the medical gentleman who examined the body said that while the aperture was like a tear, and had not the usual appearances of ulceration, it could not have resulted from the three days' fasting in the institution.

The governors should take warning from these occurrences, and endeavour to remedy the defects of which the public complain. It is the duty of the medical officers to watch closely the conduct of the nurses, and to see that the patients are well supplied with all the articles necessary to their health and comfort. Moreover, they ought personally to visit at an early opportunity the patients admitted under their care. Untoward events often arise when least expected, and the public are very ready to charge medical practitioners with neglect when there is not the shadow of a foundation for it. If the case referred to above had been nominally under the care of a private practitioner throughout the entire illness, but had been attended by his assistant, the principal would have stood a chance of losing his practice. The infirmary surgeon, however, is not in danger.

Hospitals, while frequently injurious to private medical practice, do not confer all those benefits upon the poor which many suppose. There is a reformation wanting.

THE HOUSE OF COMMONS.

THURSDAY EVENING.

Lord Ashley has just proposed the following resolution to the House of Commons:—

"Every woman claiming medical assistance from the parish in consequence of being pregnant shall be entitled, in all cases, to the aid of the medical officer with her first child, and also with the second or others which may follow, provided she present a certificate from the medical officer who attended in her previous confinement, stating that circumstances had occurred in it out of the ordinary and natural course of events, which render it desirable that she should have medical attendance on the next occasion of delivery."

His lordship read the six other resolutions of which he had given notice, but postponed their consideration to a future time. As two of these have been altered for the better through the intervention of the Committee of the Poor-law Medical Officers, we subjoin them in their improved form:—

"That, in the event of its being *considered* necessary to destroy the child in order to save the life of the mother, the union surgeon shall be at liberty to seek the assistance of another competent practitioner, if he sees fit, before the necessary operations are performed, and who shall be paid for the assistance rendered, on producing to the union or proper officer the joint certificate of the union surgeon and himself that such consultation and aid were essential previously to the expected legal and necessary deprivation of life.

That it is expedient that medical inspectors be appointed by the poor-law commissioners, or by the Secretary of State, on with his sanction; one to each district to which an assistant poor-law commissioner or inspector is attached, at a salary not exceeding *six hundred pounds a year*, exclusive of travelling expenses, and exclusive of an allowance of a clerk, if the duties should require one. That the duty of the medical inspectors should be to inspect and report on the medical treatment of the poor of the different unions, and on the fitness of the medical men appointed by the unions; to inquire particularly into the treatment of the sick poor in the union-houses, and to regulate such treatment; to inquire into and report on the diets and healthful condition of the poor within them generally, together with such other sanitary duties of every kind as may be required of them by the Secretary of State, or by the poor-law commissioners; and particularly with respect to the number of medical officers who ought to be employed in each union, *and under the sanction of poor-law commissioners, to fix the salaries which ought to be awarded to them for their services in each particular union, or part of a union, in the district.*"

The Chief Commissioner, Mr. Buller, opposes the motion. He complained that, while the notice of motion offered so wide a field for discussion, the noble lord had limited himself at the last moment to the case of pregnant women. He had latterly studied the whole of that system with great attention, and the result of his investigations was, that it was a subject too intricate and comprehensive to be dealt with in the manner proposed by the noble lord. It appeared to him that the principles and details of the question were the most anomalous, the most important, and the most difficult of any connected with the administration of the poor-law, and he should have been exceedingly happy had the result of his deliberations on the subject enabled him to prepare some plan for the administration of medical relief on a new principle. He apprehended, however, that no new plan could be devised for the administration of medical relief through the medium of the poor-law as it now stood, and that it was impossible to give medical relief through it upon any general system that should prove better or more satisfactory than that already in existence. If they were to establish a more extended or complete system of medical relief, they must abandon the system of local agency and local rates, and *devise some system of centralization which would give from the funds of the county a system of medical relief adequate to the wants of the people.* In stating this he did not mean to say that it might not be improved in its details, as his belief was that it was only by an improvement that it could be placed upon a proper footing. He then read several returns with respect to the expenses for medical relief, from which it appeared that from 1838 to 1846 the expenses for medical relief had increased one-sixth upon the sum originally paid.

There can be little doubt that Lord Ashley's resolution will be negatived.

The profession will not feel surprised at this result; nor can we add that their sorrow will be very considerable.

The "pregnant-woman resolution" provides an amelioration of some service; but it is a partial amelioration, paid for by an almost corresponding disadvantage, and accompanied, besides, by a serious professional drawback. It tacitly legislates for female midwifery in *Government* medical practice,—a bad principle and worse practice,—and, in doing this, it lays down, for practical purposes too, a sweeping distinction, as to the scientific skill required in first and subsequent parturitions, based on anything but conclusive data.

Mr. Buller's speech, as far as it goes, assures us that he has paid this subject some of the attention it demands from him; and, as we understand the inclination of his mind is to the opinion that the system would never work properly till there was a full and comprehensive revision. In this aspect we rejoice that Lord Ashley has submitted his resolution to the House and country: they will lead to a thought and discussion that cannot but prove useful; and, as we have little fear that Mr. Buller will consider himself very closely tied by any adverse opinion pronounced by him in the present intricate state of the agitation and immature condition of his knowledge, we shall, by-and-by, with a widened and concentrated strength, be enabled to recommend with effect to his adoption that comprehensive revision to which this evening he once or twice adverted.

CONTEMPORARY OBLIGATIONS.

Our statement with regard to the circulation of the Medical Journals has been denied (of course) by a contemporary, and, *of course*, in that tone of brutal vulgarity usually associated with the manners of the most unfortunate class of our fellow-citizens. After so satisfactory a confirmation of our statement, we must not ask anything further; for our contemporary would hesitate a long while before committing himself to the responsibility of an affirmation in precise numerals. He is too ill-placed for that. Yet, if our account of the matter be wrong, what so easy as to state his? Dare he give it? If so, why, when Dr. Bowring moved in the House for the return of newspaper stamps, did T. Wakley oppose the motion in a "rambling" and "rhapsodical" speech? If so, why now does our contemporary limit himself to a vague and useless denial "*so far as the Lancet is concerned*"—accompanied by the usual raving *threat*? We have only to repeat that our statement is incontrovertible—that we surpass the force of our two contemporaries united in the enormous proportion advertised—and that the *Medical Times* is at the head of all European medical journals in point of circulation, as we hope it is in every other good quality.

MORTALITY TABLE.

For the Week ending Saturday, March 11, 1848.

Causes of Death.	Total.	Average of 5 Winters.
All Causes.....	1070	1107
Specified Causes...	1067	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	261	184
Sporadic Diseases.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	46	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	128	138
Diseases of the Lungs, and of the other Organs of Respiration	198	225
Diseases of the Heart and Blood-vessels.....	30	39
Diseases of the Stomach, Liver, and other organs of Digestion	67	62
Diseases of the Kidneys, &c.	12	9
Childbirth, Diseases of the Uterus, &c	7	13
Rheumatism, Diseases of the Bones, Joints, &c. ...	4	8
Diseases of the Skin, Cellular Tissue, &c.	2	1
Old Age	36	15
Violence, Privation, Cold, and Intemperance.....	27	15

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NOTICE.

SUBSCRIBERS IN ARREAR are respectfully requested, in conformity with the terms of their subscriptions, at once to forward their remittances to the OFFICE.

THE CHART.

Our notice has allowed a considerable number of subscribers an opportunity of receiving the Chart otherwise than by post. This, though at some additional trouble to us, secured its transmission in safety and better preservation. In providing for the punctual receipt of the *Chart* by every annual subscriber on our roll, we have arranged that the delivery *through the Post-office*, where not made this week, will be completed on the two succeeding Saturdays. In the interim it is hoped, however, that other gentlemen will avail themselves of the opportunity of providing for its transmission by a channel more eligible for such an engraving than the post. Our subscribers will observe, we have no doubt, with satisfaction that, except in the Government stamp which is necessarily attached to transmit it by post, we have not suffered the Chart to be defaced with any of the ordinary references, about gifts, donors, &c., of an *advertising* and extrinsic character.

*** To meet the convenience of gentlemen wishing to possess the Chart, all annual subscribers entered on our roll during the month of March will be entitled to a copy.

The Chart is also published separately, price half-a-guinea.

☞ The subscription for the stamped edition of the *Medical Times* is 15*s.* for the half-year, and £1. 5*s.* for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfrae.

We have to repeat to two or three gentlemen, not entered as annual subscribers on our roll, an answer before given:—1. Our arrangements already made preclude our giving charts to the extent involved by our correspondents' request. 2. The investigation of claims made through booksellers, or by private letters, would involve a labour, expense, and annoyance we do not feel called upon to incur, and this the more, inasmuch as all our exertions in so invidious a task would certainly end most unsatisfactorily. 3. Though feeling a proper amount of obligation for all support, whether for short or long periods, through the trade or not—an obligation we endeavour to repay our friends by making our journal worthy its cost—we may yet be well excused for wishing to make some special, though certainly needless, acknowledgment to those subscribers whose names have been under our own eye enrolled in our own books through successive months and years as steady and cordial supporters. A compliment to them must be much misconceived if treated as an affront to our other friends, with whose wishes, besides, we should find it practically quite impossible to comply.

"Ajexander N."—An institution of the kind referred to was attempted to be established a few years since, but, as the project then failed, no further efforts have been made. We know of no persons likely to encourage such an undertaking at present.

"Dr. Edward Smith."—The regulation is not acted upon.

"A Country General Practitioner."—We disapprove of the practice of receiving medical apprentices without a premium. It may for a season benefit the master, but is ultimately injurious to the profession, as a young man who in this way commences the study of medicine has generally not only limited pecuniary resources, but also a defective education. We decline recommending.

"Paul Pry."—1. The Apothecaries' Company received a charter from James I., who called it his pet corporation. It was not a licensing medical body till the act of 1815. 2. We do not know the amount.

"Mr. J. French."—An outlay of about £100 would be at first required.

"Sigma."—It is very unlikely just now that the College will introduce dissections into the examination of the candidate for a member's diploma. We do not believe that the idea is seriously entertained by any of the council.

"An Oculist."—The work is respectable, and was first published about ten years since.

"A Member."—The difference is, that formerly the examiners were elected for life; now, during the pleasure of the council.

"Anatomist."—The price we cannot name, but we think it is moderate, as subjects are easily obtained.

"A Well-wisher."—We do not entertain the same opinion as our correspondent; on the contrary, we think that the evil is on the increase.

"F. G., Manchester."—There are so many inaccuracies in the report that we cannot engage to publish it.

"An Old Member and Subscriber."—The case was first published in our columns.

"Q. in the Corner."—The "Medical Epic" is inadmissible, though we admire the wit and talent of the author.

"Crites."—The statement should be forwarded to Sir Wm. Burnett.

"A Poor Student."—The candidate must be twenty-two years of age, and must possess a diploma from either the London, Edinburgh, or Dublin College of Surgeons; or from the University, or the Faculty of Physicians and Surgeons, of Glasgow. It is necessary also to produce a certificate from a cupper of a London hospital.

"A Medical Witness."—When respiration has been fully established, compression of the lungs will not remove the air from them. When artificial inflation has been practised, there is no great difficulty experienced in causing the lungs to lose the contained air, so that they sink in water.

"Scalpel."—It is composed of a cutaneous sheath, cellular substance, a vein, and two arteries.

"Ignoramus."—The sound is heard in cases of enlargement of the heart, or contraction of its orifices. It sometimes exists, however, in a heart that is healthy, especially in hysterical or very nervous subjects. The same sound, only sharper and more whizzing, is heard in some arteries, but the cause is not exactly known.

"A Five Years' Subscriber."—1. The licence of the College is equivalent to a medical degree, and it confers privileges which a degree does not. 2. The College has the power of conferring the honorary fellowship on any of its own licentiates who have not the required qualifications; and on such eminent men, not licentiates, as it may wish to distinguish by its approbation.

"Mr. Greenwood."—The paper referred to cannot be found. Perhaps our correspondent will kindly forward another communication.

"M. D., Lichfield."—There is no provision in the new bill.

"Amicus."—An action for libel would certainly follow the publication of the letter. Our correspondent should have forwarded his real name and address.

"A Physician."—Patronage sufficient to ensure election would be difficult to obtain. The certificates will do.

"Philo."—The request shall be attended to.

"A. Dash."—The information was given in the Students' Number.

"A Cambridge Student."—The Clinical Hospital at Paris, contains, we believe, upwards of a hundred beds; and there is a distinct ward for midwifery.

"An Old Member of the Profession."—The Company will only resign its present privileges on certain conditions.

"M. D., a Subscriber."—A person who is not enrolled a member of the Royal College of General Practitioners will not be able to sue in any court of law, with success, for the amount of a medical bill, should the proposed arrangement become law.

"Pharmacien."—We do not trouble ourselves about the composition of "popular quack" medicines. Dr. Paris' "Pharmacologia" will afford the required information.

"Scotus."—A candidate rejected by the Irish Apothecaries' Company cannot be readmitted to examination until the expiration of six months; and, after the second rejection, can appeal to be examined by the King and Queen's College of Physicians.

"Dr. Calvert."—1. Yes. 2. It is a correct conclusion.

"A Medical Student, Alpha."—An arrangement might, perhaps, be entered into with some medical gentleman; but, under the circumstances, it would require severe labour to acquire a proper knowledge of the subjects upon which the different courts examine candidates.

"Mr. James Braid, St. Peter's-square, Manchester."—We are sorry the communication was not noticed before. It was an oversight. It has come safely to hand, but from press of matter it cannot be inserted this week.

"A Third Year's Student."—A member of the College will be able to register as a general practitioner if he joins the new college within one year from its first establishment, and so will a licentiate of the Company.

"Mr. Fred. Smith Garlick, Halifax."—Communication received.

"Dr. Brown, Belgrave-house."—The communication is in type.

"A Constant Reader, Castletown, Isle of Man."—The coroner must give a warrant to entitle a medical witness to a fee for a *post-mortem* examination.

"Mr. Hugh Hastings, Stoken Church."—The paper entitled "Sal Volatile v. Chloroform" has been received.

"Mr. Thos. Brown, Castle Donington," writes us as follows in reference to Life-assurance Offices:—"You will notice with pleasure that some assurance-offices have set a good example of paying medical men for their professional opinions. Many instances to the contrary have made their appearance in various medical journals.

"Mr. G. Hepworth, M.R.C.S. and L.A.C.," in reference to the proposed new college, remarks:—"Sir,—I presume (although this is not clearly inferible from the sketch of the bill contained in your journal for Feb. 26) that it is contemplated, under the proposed plan of Medical Reform, to allow both members of the College of Surgeons and licentiates of Apothecaries' Hall to register respectively as general practitioners. It appears to me to be unfair towards those who have been at the pains to fully qualify themselves (as it is termed), that persons who possess a single qualification only should be admitted to an equality of privileges with them. I more particularly refer to those gentlemen who possess the diploma of the College alone—who are, in fact (by practising generally), engaged in illegal practice; and who may, therefore, thank themselves, and themselves alone, for any inconvenience they may sustain through their wilful violation of the act of 1815. The licentiates of the Hall are, it is true, already legally entitled to practise, although they may not have thought fit to obtain the honorary diploma of the College; they have evaded no law, and may, therefore, fairly claim to be registered as general practitioners. I certainly think that those persons possessing the College diploma should be required to undergo an examination (however purely practical) at the proposed College of General Practitioners, before being permitted to occupy that position on the register; and more decidedly still am I of opinion, that union appointments, &c., should remain inaccessible to those who are not in possession of the double qualification. I imagine it would be difficult to prove any unfairness in the arrangement I propose."

"R. P. C."—To the secretary.

"Echo Veritatis on Medical Reform" received.

"Justitia" remarks:—"All surgeons will read your remarks on 'Professional Wrongs and their Remedy,' with pleasure. There is no doubt that all medical men holding public appointments deeply feel the injustice of the oppression to which they are subject. But how are the evils to be remedied?—By combining. How have great political changes been brought about but by combination? And medical men, with justice on their side, should follow the example. Why do the public expect from medical men unrequited services? Why do medical officers of unions succumb to the parsimony and narrow-mindedness of boards of guardians? Army surgeons engage in the dangers of the battle-field without hope of honour or reward; and navy assistant-surgeons swing in their hammocks on an equality with the men before the mast, because they are not true to each other. Let us, then, form a protection association to defend ourselves against local boards and parsimonious place-hunters. Why should medical men afford the requisite information on various subjects extraneous to their duties as medical officers of unions without a tittle of remuneration? For it is evident that Lord Morpeth's bill would impose new obligations on the already overburdened union medical officer, who will in reality have to work out the details of the bill. And why do army and navy surgeons submit to the contumely of these boards? Because they are not true to each other."

"C., Edinburgh."—The paper entitled "Dr. Robert Lee and his Discoveries" has been received.

"Amicus Justitiæ."—If in the house, Yes.

"Veritas" has sent us the following letter, addressed to Mr. Wakley, that it might be inserted in his periodical, which he refused to do:—"In the hope you will give insertion in the *Lancet* to a constant reader and subscriber from its beginning to the present time, I cannot help expressing some surprise at the apparent inconsistency you betray when advocating the cause of medical reform. I remember the time when your whole energy was exerted in favour of one faculty, and when you boldly stood up for the general practitioner, and recommended the British Medical Association to secure a *locus standi*, in order more effectually to fight its battle, by accepting any vantage-ground offered; and now you call on the members of the College not to allow themselves to be degraded into the general practitioner—degraded, yes, that is the term—though you have contended, as I contend, that the general practitioner is the superior, and not the inferior, grade, if grade there ought to be. It appears to me, and I have no doubt to many others, that, your favourite scheme of registration being in danger (though it is embraced in the new bill), you instantly throw down the apple of discord, in order to divert attention from the merits of the bill, and show your spleen by descending to low, paltry abuse, such as snipe and sneaking, forgetting that a good cause needs no scurrility. Because the bill is not your own, why abuse it? Why not endeavour to amend it (for we know it is not perfect), and show your professional brethren that you are above the mean jealousy of envy, and that you are ready to assist them to the utmost, even though you think that more might be done? You have done a great deal for the profession, and I acknowledge, with your talents, you may do a great deal more; and I should feel highly gratified to see you earn the highest testimonial that our gratitude could afford, but it certainly cannot be by setting one class against another."

"A Constant Reader" writes in reference to the union medical officers as follows:—"It appears to me that poor people and the union medical officers will not have proper justice done them until the latter may be allowed the following privileges:—1. To attend all cases of sickness that they in their judgment may consider necessary, without having to wait for orders from the relieving-officer. 2. To send an account quarterly to the Poor-law Commissioners of the number of cases thus attended. 3. To receive the sum of not less than £50 for every hundred cases so attended. 4. In a week after sending in such account, to receive the money for attending such cases direct from the Poor-law Commissioners, either in hard cash or by checks drawn on the nearest bankers to the union medical officers. As medical men belong to a liberal profession, I think they ought to be allowed the above privileges."

"Mr. F. C. Howard, Linton" is thanked for his communication.

"Dr. Moses, St. Asaph."—Communication received.

Letters and communications have also been received from Dr. Brown; A Friend; Mr. Atkinson, Broughton; Mr. Ronan, Moneyslane; Mr. Turner, Deddington; Mr. Joy, Northwold; Mr. Fisher, Bungay; Mr. Fowler, Corsterphine; Mr. Wilson, Lockerbie; Dr. Robinson, Manchester; Mr. Counsellor, Gateshead; Mr. Connelly, Killeagh; Mr. Wickham, Didmarton; Mr. Squibb; Mr. Burnard, Wells; Mr. Boulthee, Whittlesea; Mr. Newland, Dublin; Mr. Wilkins, 41st Regiment; Mr. Spencer, Gaulgreave; Mr. Pye, Runcorne; Mr. Moyce, Rotherfield; Mr. Ramsey, Shelford; Mr. King, Coinbrook; Mr. Kemp, Horbury; Mr. Buller, Ipswich; Mr. Hepworth, Tewkesbury; Mr. Martin, Kincerton; Mr. Heale, Luton; Mr. Clarke, Syuton; Mr. Reeves, Carlisle; Mr. Hatton, Caleford; Mr. Barton, Didsbury; Mr. Phillips, Chilton; Mr. Urquhart, Mindow; Dr. Inglis, Halifax; Mr. Rock, Castle Blaney; Mr. Boyton, Wattington; Mr. Leppington, Grimsby; Mr. Blewett, Lostwithiel; Mr. Traill, Arbroath; Mr. Dalley, Markfield; Alexander N.; Dr. E. Smith; A Country General Practitioner; Paul Pry

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No. 443. **SUMMARY.** March 25.

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ORIGINAL LECTURES.

LECTURES ON SOME OF THE MORE IMPORTANT POINTS IN SURGERY.

By G. J. GUTHRIE, Esq., F.R.S.,
Read by Mr. HANCOCK, Surgeon to the Charing-cross Hospital, and Lecturer on Anatomy and Physiology at the Royal Westminster Ophthalmic Hospital.

Lecture VII.

ON WOUNDS AND INJURIES OF THE CHEST.

Emphysema; cases by Paré, Wiseman, Littre, and Dr. W. Hunter; emphysema of the lung; character and causes; symptoms of emphysema; emphysema caused by fractured ribs; treatment; by punctures; Mr. J. Bell on emphysema; Baron Larrey's cases; Mr. Guthrie's case; emphysema never caused by a musket-shot wound; condition of the lungs in emphysema; treatment of extreme cases; hernia of the lung; Sabatier's case; Cruveilhier's opinion that hernia of the lung may be mistaken for circumscribed empyema; M. Jobert's case; M. Cruveilhier's case of old hernia of the lung; M. Lavallée's cases and opinion; wounds of the heart; *their fatality; opinions of the ancients that wounds penetrating the cavities of the heart were immediately fatal, but not so if the substance only were divided; cases of foreign bodies found in the hearts of animals; Mr. Grainger's case; cases of wounds of the heart, from various authors, in which the injury was survived during a longer or shorter period; Senac's opinion that wounds of the right ventricle are more common and more quickly fatal than those of the left; cases of wounds of the heart recorded by Dr. Babington, Mr. Featherston, M. Ferus, Messrs. Davis and Steward, M. Fournier, and Mr. Trigge.*

Emphysema, from *ev*, in, and *φυσαω*, to inflate, the diffusion of air into a part of, or throughout, the cellular tissue of the body. The term has been applied of late to such diffusion taking place from an injury to the lung; it is then called traumatic. When it occurs otherwise, it is said to be idiopathic, or spontaneous.

Case 29.—Paré (Libr. viii., chap. xxx., p. 91) says, that a man, named François Brège, was wounded at Joinville, on the 1st of May, 1574, by a sword, which divided a part of the trachea and one of the jugular veins. The wound having been sewn up, the wind introduced itself into the cellular membrane, and blew him up like a sheep, prepared by inflation, for skinning. Under these circumstances, M. Le Jeune, surgeon to the Duke of Guise, thought it right to have recourse to the extreme remedy of making several deep scarifications into the swollen parts, after which F. Brège recovered.

This observation of Paré seems to have passed without notice by subsequent writers.

Case 30.—Wiseman, in the folio edition of his works, published in London, in 1705, says, Obs. 4:—"A footman was wounded in the left side, and coughed up and discharged much blood by the wound. Some days afterwards, feeling a crackling about the wound with my fingers, and concluding it was air which had got out of the thorax, I made an incision into it, about an inch long, and discharged it."

Wiseman does not seem to have been aware that he was doing anything out of the ordinary mode of proceeding in such cases.

Case 31.—Littre, in his Memoir on Emphysema in the "Histoire de l'Academie Royale des Sciences' for 1713, says, that a man, thirty years of age, died five days after he had received a wound in the chest from a sword. The emphysematous swelling was eleven inches thick on the chest, nine on the abdomen, six on the neck, and four in other parts of the body. The very eyelids, he says, were distended like balloons. On opening the chest, he found about eight ounces of blood mixed with pus. The sword had penetrated one of the three lobes of the lung, which was hard and blackish; the wound in it was open, seven or eight lines in width, and one and a half in depth. The other lobes were a little inflamed; the external wound was closed, but that in the intercostal muscles and pleura had not united.

He was bled, Littre says, six or seven times, but there can be little doubt that nothing essential was done for his relief. Mery, in relating another case in the same volume, expressly says that, if he had made an opening in the skin, he might have relieved the emphysema, but his patient would have died notwithstanding. These two French writers seem to have been unacquainted with the practice of Paré and of Wiseman, although they have themselves been usually referred to as, perhaps, the earliest authorities on the subject of emphysema, by subsequent writers.

Case 32.—Dr. W. Hunter gives the following account of a severe case in the second volume of "The Medical Observations and Inquiries," page 17, for October, 1752:—"The patient was in bed twenty-nine hours after the accident, a fall from his horse, injuring the side; panting for breath; his form that of a human skin stuffed. The inflation was great and universal, except in the (palms) of the hands, and (soles) of the feet; the skin was everywhere shining. The air could easily be pressed out of any part, but it returned. When struck, his body sounded like a wet drum; and when pressed, the air could be felt, and its sound distinctly heard. Those parts on the surface which have a more loose and yielding cellular membrane were proportionably more swelled. The eyelids, penis, and scrotum were as much distended as in the worst case of anasarca. The breathing was laborious; the inspiration so short as to be almost instantaneous, ending with that catch in the throat which is produced by shutting the glottis; after this he strained to expire without any noise; then, suddenly opening the glottis, he forced out his breath with a sort of inward groan, and in a hurry, and then quickly inspired again, so that his endeavour seemed to be to keep his lungs always full. Inspiration succeeded expiration as fast as possible. From the small quantity that was inspired and expired at a time, it was plain that he either had not room for a greater quantity, or could not bear a greater expansion of the chest." Neither Dr. Hunter nor Mr. Chesten, who related a somewhat similar case in the same volume, referred to the labours of their countryman, Wiseman, although they noticed those of Littre and of Mery.

Emphysema has been said to take place after a wound in the chest, but without an injury of the lung, from the air passing through the wound into the cavity during inspiration, and, by accumulation and subsequent compression under the act of expiration, giving rise to all the symptoms of the disease. I have never seen such a case, and have a suspicion that the complaint is more theoretical than real, although thought deserving by Messrs. Halliday, S. Cooper, and others, of an especial paragraph.

Emphysema of the lung, as a medical disease, is mainly opposed to the ordinary emphysema, or surgical disease, in not being an extravasation of the air into the cavity of the chest, but a dilatation of the air-cells formed for its reception. It is of two kinds, vesicular and interlobular—vesicular when dependent on the enlargement of one or more air-cells; interlobular, when, from the sudden rupture of an air-cell, the air has found its way into the interlobular structure of the lung. A third and very rare kind has been added, in which air, being extravasated under the pleura, has raised it in the form of a pouch. The morbid appearances these diseases afford, and the symptoms they give rise to, I shall not notice, as they do not fall within the range of surgical skill, and not frequently within the controlling power of medical ability and science. The vesicular emphysema has been commented upon by Valsalva, Morgagni, Ruysch, and Baillie, and it has been particularly described and explained by Laennec, to whom our knowledge of these complaints is principally due.

They are usually complaints of some standing before they are discovered, and are accompanied by other diseases of the lungs, principally by chronic catarrh, asthma, &c. The interlobular is sometimes formed suddenly from the rupture of one or more air-vesicles; is more apparent by irregular elevations on the surface of the lung; and when the rupture occurs near its root the air may penetrate the mediastinum, and be propelled from it into the subcutaneous tissue of the neck, and even of the whole body. Instances are on record of its occurrence in this manner after severe coughing, great straining in labour, &c. &c., when it is possible that the air may require to be allowed to escape through punctures made in proper places for the purpose. Air is said to be secreted in various tissues of the body during life, and to become even combustible; it is probable that in such cases it results from the commencement of putrefaction before death. The small ubiquities of emphysema, such as blowing up the cellular membrane covering the lachrymal passages or frontal sinuses, are curiosities.

Emphysema, being a swelling commencing for the most part suddenly, is free from redness, and

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is distinguished from œdema, or the swelling containing a serous fluid which is also colourless, by its not pitting on pressure or retaining the mark of the finger. It is, on the contrary, elastic, and the displacement of the air, on pressing on the part, gives rise to a peculiar noise resembling the crackling of a dry bladder partly filled with air, on its being compressed, usually called crepitation. This swelling extends as the air introduced into the cellular membrane increases in quantity, until the whole body may be distended in the way described in the foregoing cases.

Emphysema most commonly occurs from fractured ribs, a point from one or more of which abrades the surface of the lung. Through the opening thus made the air escapes into the sac of the pleura, and thence by the side of the broken part of the ribs into the cellular membrane. The distress in breathing arises from the air being diffused over the surface of the lung, which it gradually causes to collapse under the pressure exercised by the act of expiration, whilst at the same time, the mediastinum yielding, the opposite lung suffers in a similar way, although to a less extent, until the aërification of the blood is so greatly obstructed as at last to interfere with life, unless relief be obtained by equalizing the pressure made on the lung by the compressed air in the cavity of the pleura, with that exercised on the inside of the lung through the glottis.

In ordinary, but not severe, cases of fractured ribs, a slight degree of emphysema is frequently observed over the injured part, implying that the lung has been abraded or otherwise injured; such a case rarely requires more than the application of a compress wetted with a little spirit and cold water, retained by a bandage. The great art in the treatment of broken ribs by compress and bandage consists in their proper application, and this can only be ascertained by the feelings of the patient. The application of a broad flannel bandage, so as to restrain the motions of the chest and to cause the sufferer to breathe by the diaphragm, has been recommended from the earliest periods of surgery. It is, however, a recommendation frequently more honoured in the breach than the observance. Many persons with injured or broken ribs cannot bear the pressure of a bandage, whilst others derive much ease from its use. It is then a point to be ascertained from actual experiment; and, as far as observation goes, I am induced to say that a tight bandage generally disagrees when the injury has been sustained at the lower part of the chest, and is more frequently useful above the fifth or sixth rib.

When the emphysematous swelling extends so as to invade a considerable portion of the body, the further diffusion of air should be prevented by punctures made through the skin in such places as may be thought necessary, and in extreme cases even by incisions; but these are things more often spoken and written about than practised, or than are even necessary.

Mr. J. Bell had so alarmed all military surgeons by stating, in his able discourses of the nature and cure of wounds, that emphysema was "peculiarly frequent in gunshot wounds of the chest, both at the orifice of entrance and of exit of the ball," that they thought of little else. They could not withstand the brilliant manner in which this remarkable error was expressed. It carried conviction with it, and Dr. Heinen says, it actually haunted his hours of repose, when he first entered on the practice of military surgery. To such of us as had served the first part of the war in Portugal, it was no longer a bugbear; we slept in peace after the battles of Roliça and Vimiera, of Corunna, of Oporto, and Talavera—laughing, perhaps, a little at the credulity of the surgical portion of mankind. We had not time to do more in those days than to prepare our materials for a future occasion, and to instruct our brethren who joined us on the field of battle in the errors they had to unlearn; I have shown, page 4, of my "Record of Wounds of Arteries," that the alarm was even entertained at home as late as the battle of Waterloo, and the opportunity of seeing such cases was sought after with avidity by the learned professors of the day, who could not find them at home, and were not less disappointed abroad.

Baron Larrey, writing in 1829, is not less eloquent and alarming than Mr. J. Bell: he does not, however, say that emphysema is of common occurrence after gunshot wounds, but that it does occur after punctured or other small wounds into the cavity of the chest; and I have transcribed from vol. ii., page 188 *et seq.*, the two following cases—premising that the Baron not only writes forcibly, but occasionally somewhat (*tant soit peu*) exaggeratively.

Case 33.—A Polish officer was wounded by a lance in 1812, at the inferior angle of the left shoulder-blade, in an oblique direction, which penetrated the cavity of the chest. The edges of the external wound were brought and retained in contact by compress and bandage. Twenty-four hours afterwards the Baron found his whole body distended by air to the highest possible degree above alluded to. Respiration and pulse scarcely distinguishable. He removed the bandages and enlarged the wound, so as to make a clear passage from the chest outwards; the edges of the wound were dry-cupped, and afterwards simply brought together and covered by a piece of linen wetted with camphorated wine. Air was drawn from various parts by cupping-glasses, and principally on the chest and extremities. Frictions with ammoniacal and camphorated wine were resorted to frequently. When scarificators and glasses could not be applied, punctures were made, and an infusion of arnica montana given for drink. He gradually recovered.

Case 34.—A soldier was wounded on the 27th of January, 1818, in the right armpit, by a foil, the button of which had been removed and the point sharpened; it passed under the muscles, and penetrated the cavity of the chest, between the fourth and fifth ribs, near the sternum. Very little blood was lost, but emphysema rapidly took place, so as to distend the whole of the cellular membrane of the body in so remarkable a manner as to render it an enormous and apparently shapeless mass. A good and sufficient compression was made over the opening into the cavity of the chest to prevent the further exit of air from it; an incision was made over the trachea, a second below the sternum, and a third on the left side of the chest. On these, cupping-glasses were applied with great effect; the swelling gradually subsided, and by a repetition of them, and other ordinary means, the air was entirely removed, and the man gradually recovered.

Case 35.—A soldier was brought to me, after the battle of Albuhera, who had been wounded in the right side of the chest by a sword, which had passed slantingly under the shoulder-blade; from which injury he did not suffer much, until the whole side, as well as the body and neck, began to swell and impede his breathing, which was effected with some difficulty, and only with any ease when sitting up. The case being plain, I enlarged the external wound until I could distinctly hear the air rush out, and see the part where the weapon had penetrated between the ribs; upon which he declared himself relieved. After a short time, when it was supposed that the pressure of the air within and without the lung was equalized, the wound was closed by compress and bandage. It did not, however, unite; active inflammation of the cavity of the chest ensued, requiring frequent and considerable losses of blood for its domination. It at last became quiescent, and at the end of three weeks the man was sent to Elvas, in a favourable state for recovery.

I have seen some others of a similar nature, but never one more important with relation to the emphysema.

The large opening made by a musket-ball never admits of emphysema to a troublesome extent; and, in fact, it rarely takes place at all. A slanting wound made by a small pistol-shot may give rise to it, but it seldom does so. It commonly succeeds long and tortuous wounds, made by swords, lances, or bayonets; and then only shortly after the occurrence of the accident.

I have said that, when an opening is made into the cavity of the chest in the dead body, the lung gradually recedes from the pleura lining its wall, for some distance; it is said to collapse; but this does not take place to anything like the same extent in the living body; and, if the continued admission of air through the wound is prevented, it scarcely takes place at all; or, should it have done so, the air is usually absorbed, and the lung quickly recovers its natural dimensions and functions. Neither does a wound in the chest, when kept open, usually cause this collapse to the extent which it is generally supposed to do in the living body. The lung can be seen in motion, and performing its office, although imperfectly, as it does not fill the cavity of the pleura. When the lung is wounded by a ball actually going through its substance, it does not necessarily collapse; and abrasions, or deeper injuries of its surface, lead to no such results, as was evident to all the gentlemen who were present at the opening of the body of the late Mr. Drummond. To cause the collapse of a living lung, its surface must be compressed by a fluid, as in empyema, or by air, as in emphysema, or pneumo-thorax, when a wound in the lung does not, or cannot, be closed by the usual processes of nature for such purposes, and the orifices of the bronchial tubes communicating with the canal of the wound, instead of becoming closed, remain pervious—a misfortune which does not commonly occur. The air, escaping into the cavity of the pleura at every inspiration, becomes more and more compressed at every expiration, and thus, at each time, a little more escapes, and is then compressed, until the lung becomes flattened towards the posterior mediastinum and the spine, but not impervious; for until the last a little air will pass into it on each attempt at forced inspiration, or the pumping, as it may be termed, which occurs previous to dissolution. It would appear that the mediastinum yields and bulges into the opposite side; that the heart, with its pericardium, gives way in a similar manner; and that the elasticity and resiliency of the lung aided by the pumping force employed, are only overcome by the resistance of the surrounding structures, which can yield no further, unless by tearing, which the muscular power giving rise to inspiration is incapable of effecting; or, if it should occur in some rare cases, it only adds another evil to those already existing.

In these extreme cases, when the patient can no longer lie down, but sits up supported, in the greatest agony of respiration, approaching to suffocation, the face and lips swollen and blue, the pulse almost imperceptible and countless, Mr. Hewson recommended an opening to be made into the chest, for the purpose of evacuating the highly compressed and compressing air, and to allow the expansion of the lung after its evacuation. Bromfeild and B. Bell supported this opinion, which John Bell condemned. My excellent friend and colleague at the College of Surgeons, Mr. S. Cooper, in his "Surgical Dictionary," supports John Bell, on the ground that "it is impracticable to make the collapsed viscus, or lung, expand until the breach is closed;" an opinion in which he has been followed by most teachers of surgery in London, but which I, nevertheless, apprehend to be an error, for the air is not drained off through the wound in the lung, in the manner that water is drained off through a breach in a barrel, but it is squeezed out by the compressed air being more elastic, and exercising a greater compressing force than the expanding power of the lung, aided by the respiratory muscles. The lung is, therefore, flattened. When this compressed air is drawn off, through the canula of a small trocar, as was done in the case of Lord Beaumont, the compressing power being removed, the lung expands, in spite of the breach in it, and the mediastinum and heart return to their natural situation, the distress in breathing is removed, the failing cir-

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culation is restored, and the opposite lung resumes its functions.

The course, then, to pursue in such extreme cases is, to puncture the chest, evacuate the air, withdraw the canula, and close the opening. The life of the patient having been thus saved, time is given for the wound in the lung to heal under the usual inflammatory processes, provided it will do so without a recurrence of the mischief, which, if it should take place, must be met by another puncture, or the opening in the chest should be made permanent, in order to equalize the pressure of the air in the cavity.

The incisions (the *taillades* of the French) into the cavity of the chest, formerly recommended, will not, I apprehend, be necessary, and should only be resorted to when the means indicated have failed, which they will rarely or never do, when combined in the first instance with an antiphlogistic treatment, carried on as far as prudence dictates, aided by sedatives and, if necessary, by cordials.

The advantages to be derived from percussion and auscultation in these cases are too prominent to require enforcing here. Their value has been sufficiently shown in the preceding lectures, and they should be resorted to at every visit, or, at least, three times in the twenty-four hours.

Hernia of the lung, the consequence of an injury, in a complaint of rare occurrence. It appears to take place when a deficiency occurs in the intercostal muscles, and the parts under the skin do not become firmly consolidated.

Case 36.—Sabatier relates one case, occurring after the cicatrization of an extensive wound, made between the fifth and sixth ribs by a bayonet, at the battle of Rosbach; the divided intercostal muscles did not reunite, he says, and the lung protruded the skin at each inspiration, and again retired at each expiration, with but little uneasiness to the patient.

M. Cruveilhier supposes, in his "Anatomie Pathologique," that a hernia of the lung pointing externally may be mistaken for a circumscribed empyema, formed after an injury, if one had been previously inflicted at that part, and the operation for empyema by necessity might be performed in error. M. Jobert had a case of empyema in which, when the patient expired strongly, a tumour appeared, the size of a hen's egg, between the xyphoid cartilage and the cartilaginous edge of the ribs; and when he coughed the hand placed on it was raised as if something displaced it. It might have been taken for a hernia if the fluctuation had not been unequivocal, and the patient had not lately suffered from an attack of chronic pneumonia.

Case 37.—An examination of a hernia of the lung, in a man aged seventy-seven, occurred in 1832, at the Hôpital St. Louis. M. Voisin, now of Limoges, gave the parts to Cruveilhier, who found that it had formed between the third and fourth ribs, after an injury from the pole of a carriage, which had broken both ribs in his youth. The ribs had separated, forming an oval opening, four inches in length transversely, and two and a half vertically. This opening was filled up by a herniary sac, extending from the pleura costalis, and lining the inside of the pectorales major and minor; but the pleura costalis was attached to the pleura pulmonalis around the part of the lung which protruded into the herniary sac, and which Cruveilhier thought must be a new formation. The protrusion was only observable on a deep inspiration, or on coughing, and gave no inconvenience. M. Morel Lavallée believes, according to Vidal, that the protrusion only takes place in such cases at the moment of expiration, when the swelling of the part and the crepitation can alone be felt. In a case related by M. Lavallée, before the Surgical Society of Paris, the hernia followed a sword wound, a little below and to the inside of the left nipple, and gave few, or no, distinguishable signs during inspiration; but during coughing or blowing the signs of enlargement were very distinct. "On coughing, the part became as large as an egg, evidently proceeding from the inside of the chest, and giving to the finger the feeling of air penetrating the smaller air-cells, or that experienced on blowing into a lung retained between the fingers. The ear applied to the part during the expiration or cough perceived an intense crepitation, less marked, however, than when examined by the touch, as well as a natural respiratory murmur when quiet, being, however, stronger, softer, and less veiled; exactly like the sound given out by a pulmonary lobule, inflated close to the ear, but without enlargement of the part."

I have seen but two undoubted cases of hernia of the lung after injury, and in these the elevation of the part or protrusion certainly took place during expiration; so that the remark of Sabatier was, in all probability, inaccurate.

Wounds of the heart are for the most part immediately fatal. Many persons have, however, been known to live for hours, nay days, and even weeks, with wounds which could scarcely be otherwise than destructive; and several cases are recorded, in which the cicatrixes discovered after death, in persons known to have been wounded in the vicinity of the heart, have shown that even severe wounds of that most important organ are not necessarily fatal. As our knowledge of the nature of the injury inflicted can never be distinct, it follows that every wound should be considered as curable until it is unfortunately proved to be the contrary.

Hippocrates, sec. 6, aph. 18; Aristotle, lib. 3, part an. c. 4; Pliny, lib. xi., c. 69; Galen, in commentar. sec. 6, aph. 18; Paulus Ægineta, De Re Med., lib. vi., de telis, &c.; Avicenna, lib. 4, tract 1 and 2; and Celsus, s. 8, lib. 5, c. 26, De Re Medica, believed that a wound of the heart which penetrated any of its cavities was quickly fatal; but that a person might survive twenty-four hours if the substance only were divided. Fernelius, who was a mere copyist of his great predecessors, reasserts the same, lib. Παθολογ, c. 12, but adds that he had seen three ulcers on the surface of the heart of a person which must have existed for some time. In animals it was then known that perforations of the cavities were not always mortal wounds. Desiderius, Jacotius, Comment. Coac. Hippocrat., lib. 1, sec. 3; Thomas de Verga, Gaspard, de Rejès, each gives an instance of an arrow-head being found in the heart of a stag, when killed long after the wound had been received, and of which the animal had recovered; and J. C. Weber, of a ball lodged in the heart of a stag. Dolæus notices a nearly similar instance in his "Ephemerides," 1667, p. 166. Brassavolus, comment. ad aph. 18, sec. 6, saw a hog live for an hour, and eat, after receiving a wound of the heart. Felix Plater says he found a piece of wood in the heart of a healthy hog. Duverney is said by Peyer, "Parerga Anat. et Med. septem," &c., Geneve, 1681, c. 16, "Ephem. Nat. cur. Obs.," 177, p. 166, to have found a rusty needle in the heart of a fat cow; and J. Lasserre, several small shot in the heart of a dog. J. Corn. Weber, "Anchora Sauciatorum," &c., 1600, speaks of the case of a ball found in the heart of a boar, who had recovered from the wound; around it it had the material with which it was enveloped to make it fit the gun.

In later times Mr. Grainger, of Burton-on-Trent, mentions the fact of a deer having been killed in Bradby-park, when a ball was found contained in a cyst in the substance of the heart. One of the ribs bore the mark of having been fractured, and the heart and pericardium adhered to its inside at that part. "Edin. Med. and Surg. Journal," vol. 12, 1816.

Cabrol, "Observationes Anat.," p. 26, is the first who says he found a cicatrix two fingers wide on the heart of a man who had been previously wounded. Idonis Wolf, "Obs. Med. Chirurg. Quedlingburg," 1704, lib. 1, obs. 21; says, that in 1642, Tourby, of Paris, found an extensive cicatrix near the apex of the heart of a man, known to have been wounded four years before.

Paré, in the 32nd chapter of his "Œuvres Completes," edited by Malgaigne, Paris, 1840, has brought forward all that was known at his time by his predecessors, and particularly by Guy de Chauliac and Vigo. He was, however, the first to record a case of wound of the heart which was not instantly mortal; it occurred in the person of a gentleman at Turin, who, having received a sword-wound under the left breast, pursued his opponent for two hundred paces before he fell. A wound in the heart was found, capable of admitting the finger.

Morgagni, "De Sed. et Causis," epist 63, sec. 26, relates the case of a beggar who, having been stabbed through both sides of the left ventricle, walked seventy yards, sat down, and died half an hour afterwards, while throwing up his dinner.

Mr. Baird, in "The Monthly Journal of Medical Science," relates the case of a man who walked one hundred and fifty yards, after receiving a wound of the left ventricle of the heart, before he died. The blade of the knife was half an inch wide at its point, and the wound in the heart was transverse, and after death half an inch in length. The pericardium contained only a small clot or two of blood, although three pints were found in the left cavity of the pleura.

Henry IV. of France, the great friend of Paré, assassinated by Ravaillac, was twice struck by the poniard: the first blow did not penetrate the chest; the second traversed the left lung, and opened one of the pulmonary veins, entering the left auricle of the heart. The cavity of the chest was full of blood.

Lucius, of Ingolstadt ("In Bonet, Sepulch. Anat.," t. iii., p. 358), says that a printer, wounded through both ventricles, walked afterwards for some distance in the market-place before he fell dead. Henri de Heers, "Obs. Med.," lib. 1, obs. 2, relates the case of a man who lived two days after a wound of the ventricle, and of another who lived seven days after the heart had been wounded in two different places by two balls. Tulpius mentions one who lived two days after two stabs in the heart. Riva, one who lived four days with two wounds of the right ventricle. Fuat and Zachias, at. 2, quest. 2, tom. 1, lib. 5, each the same. Bartholin, "Hist. Anat. et Med.," rar. cent, c. 1, Hist. 77, relates the case of a young man who walked home a considerable distance, and lived five days after having received a wound of the right ventricle. Meckren, "Obs. Med. Chir.," 16, p. 153, the same. Garmanus, "Ephem. Nat." cur dec. 2 an 3, obs. 114, p. 228, one for six days. Caranius, "Zodiac Med. Gall. in Bonet.," loc. cit., p. 379, after a gunshot wound, seven days. De la Sue, in "The Academy of Sciences" for 1744, seven days. Rhodius, nine days. Bonetus, loc. cit. p. 376, obs. 3, gives another from Le Roy, of a similar wound, in which the patient lived twenty-three days; and from Billy another, also fatal in five days. Mummius Luddens, of Tonningen, obs. 44, de la Dissert. de M. Allewereildt, Theses de Paris, 1807, No. 73, saw a man who, having quite recovered from a wound of the heart, died suddenly of an abscess formed on its surface. Hildanus, "Obs. Chir.," says a man outlived a wound of the heart several months in great distress, and died at last suddenly, the heart and pericardium being found, on dissection, in a state of suppuration. Fantoni, in the "Giornale de Lit. d'Italia," loc. 21, p. 145, relates a case of wound of the heart which suppurated and discharged freely for twenty-three days before the man died; and of another who lived seventeen days after receiving a wound of the left ventricle, although he lost a pound of blood daily from it, none being afterwards found in the pericardium. In a case related by Panaroli, of Rome, in his "Iatrologismorum," &c., 1643, the man lived four days, although the right ventricle had been transfixed in two places. Dolœus, in the "Ephemerides de la Nature," had a case of wound of both ventricles, after which the man lived five hours. G. Horstius, "Observat. Medicin. ad Hildan. Sur.," &c., lib. i., obs. 18, speaks of a wound of the septum without implicating either cavity; the patient lived eight days. Weitzmann, Witteberg, 1775, of the apex of the heart, who lived fourteen days.

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La Motte, in his 227th Observation, relates the case of a man whose chest was penetrated, on the left side, by a sword from behind, between the fifth and sixth ribs, and which came out in front, a little below the nipple; he lived two hours. The coronary artery was divided, and the left pleural cavity was full of blood. In his 228th Observation, the soldier died in twelve hours, the left side being full of blood, which escaped through an opening so small near the apex of the left ventricle, that many would scarcely believe it had been wounded. Bonetus relates another case, that of a nobleman, who lived three days after having been stabbed in the right axilla between the third and fourth ribs. The lung and pulmonary artery were both wounded, and the cavity of the same side of the chest was full of blood. (See Timæus, xvi. "In Boneti Sepulchretum," vol. iii., p. 359, and "Casus Med. Prax.," &c., Leipsig, 1667.) Helwig, "Obs. Med. Phys.," Augsbourg, 1680, the case of a man run through both ventricles by a sword, without injuring the lungs. He gives, from "Borellus, Zodiac, Med. Gall.," p. 156, the case of M. de Serreuil who, wounded by a ball in the chest, died in four hours. The pericardium was found intact, although the blow had ruptured the lower part of the right ventricle of the heart. Morgagni, in his 53rd Letter, gives a similar case from Vater, that of a woman in whom, from a blow, the right ventricle was ruptured, the pericardium being whole. He further relates a case from Valsalva of a man, who, being wounded between the fifth and sixth ribs, near the sternum, died on the eighth day. The mediastinum had been first wounded, then the pericardium, then the right ventricle, the instrument going also through the diaphragm, through which a quantity of blood had passed into the abdomen.

Courtial, in his "Novel. Observ. Anat. sur les Os," 1705, p. 188, and Saviard, each relate the cases of men who, having been wounded in both ventricles, through the septum, walked five hundred paces before they fell, the patient in each case living five hours. Le Rouge (1792), in a note to an edition of Saviard, published and commented upon by him, relates the case of a man, wounded by a sword, who got over the first symptoms indicative of a lesion of the heart, and walked about on the seventh day; on the eleventh he died suddenly after returning from drinking. The sword had passed through the lung, the pericardium, the right auricle of the heart, and both sides of the aorta. Durand, "Mémoire sur l'Abus de l'Ensevelisement des Morts," Strasbourg, 1789, says:—"In the month of December, 1769, a horseman of the Royal Regiment of Cavalry was wounded by a sword in the chest, lost a quantity of blood, and was left under the staircase of an old half-demolished house, during very cold weather, from Tuesday until the Sunday, when he was found with his legs frost-bitten. He lived ten days afterwards, and then died of the mortification. On dissection it was ascertained that the sword had passed through the right lung and pericardium into the right ventricle. The wounds of all these parts were healed. The man was under the care of M. Chastenet. In another case, under the care of the same gentleman, related in the 'Journal de Chirurgie Militaire,' tome 2, 1782, by his son, the man lived twenty-four hours after the left auricle and superior vena cava had both been wounded."

Senac, in his "Traite des Maladies de Cœur," says, he was led to conclude from his inquiries that wounds of the right ventricle were more common and more likely to prove quickly fatal than those of the left, from the greater thinness of its walls; and to agree with Glandorp and Schulze that a wound through both auricles must be certainly so. In a series of sixty-four cases collected and published in the "Dictionnaire de Médecine," tome 8, Paris, 1834, p. 245, M. Ollivier found that the right ventricle was wounded in twenty-nine cases, the left ventricle in twelve, both ventricles in nine; the right auricle in three, the left in one, the apex or base of the heart in seven, while in three the seat of the wound was not indicated—differences which the situation of the heart in the chest will account for, whilst the accidental circumstance of the wound being a puncture, or of a larger or smaller size, penetrating or not penetrating the cavities, and especially the ventricles, may account for the greater or less rapidity with which death followed, or for the recoveries which in some instances took place.

In more modern times, and in those nearer to the present day, so many cases of wounds of the heart are to be found, that it would be more than useless to attempt to relate them all. A few are, however, brought forward, in some of which there could be little doubt that a cure had been effected, and proving in a no less obvious manner that they require all the aid which the science and art of surgery can yield.

London, the great metropolis of the British empire, with its two millions of inhabitants, has been nearly exempt from injuries of the heart. There is not at the present moment a surgeon of any of its largest hospitals who has seen or recollects a case of recovery after a wound of the heart, either in his own practice, or in that of his colleagues or predecessors. They have rarely ever seen a case brought to them alive for treatment; sensible people not being disposed to stab each other, while madmen try to kill themselves in a different way.

Case 38.—In "The Medical Records and Researches" for 1798, Dr. Babington relates the case of W. Thomas, of the Foudroyant, who slipped from the gangway at five o'clock on the evening of the 25th of May, 1798, and fell on the deck below, on his bayonet, which entered the abdomen two inches above the hip-bone on the left side, pierced the colon, the stomach twice, the liver, the diaphragm, the right ventricle at its lower part, and came out near the tricuspid valve; it then passed through the middle and upper lobes of the right lung, and proceeded as far as the cartilage of the second and third ribs, near the sternum, going between them, and slightly injuring the pectoral muscle. He lived fourteen hours, having become emphysematous even to the remote parts of the extremities, but very few of the symptoms occurring which usually attend wounds of parts so essential to life.

Case 39.—Mr. Featherston, in the 2nd volume of "The Medico-Chirurgical Transactions," relates the case of a soldier of the Northampton Militia, who, slipping down, ran a bayonet into his chest, immediately above the seventh rib. The bleeding was trifling, the alarm great, pulse scarcely perceptible, extremities cold, and the man nearly in a state of syncope. On reaction taking place, respiration became so difficult as to require his being placed in the sitting position. He was blooded to sixteen ounces, and expressed himself relieved. He died almost suddenly at the end of forty-nine hours. The bayonet had penetrated the left ventricle about two inches from the apex. There were two quarts of blood in the cavities of the pericardium and pleura.

In the "Repertoire d'Anatomie et de Clinique Chirurgicale" there is an instance mentioned by M. Ferus, of a person surviving three weeks after a watchmaker's file had traversed the left ventricle, and, after passing through the septum, had lodged in the right. The pericardium contained a quantity of pus, but the presence of the instrument prevented the flow of blood.

Case 40, published in the 14th volume of the *London Medical Gazette*, page 346, by Messrs. Davis and Steward, is very remarkable from the fact that a piece of wood three inches in length was found, on the death of a boy ten years old, five weeks after the accident had happened, to have lodged in the right ventricle, without a mark remaining of the wound in its wall by which it had entered. It was, therefore, supposed to have perforated the vena cava, and to have been carried by the stream of blood into the ventricle. The boy died hectic. Fournier, in the "Dictionnaire des Sciences Médicales," "Cas rares," relates the case of a soldier, wounded by a musket-ball in the chest, who nearly died of hemorrhage during the first three days. Recovering from this he was restored to health, with the exception of being from time to time troubled with frequent and tormenting palpitations of the heart. He died six years afterwards, and M. Maussion, of Orleans, found the ball lodged in the substance of the right ventricle, near the apex, to which part the pericardium was attached, and by it to the mediastinum.

Case 41.—Mr. Trigge, of Plymouth, has related, in the April number of the "Edin. Med. and Surgical Journal" for 1818, the case of a soldier of the Queen's, who was wounded by a musket-ball, the night before the battle of Corunna, the 16th of January, 1809. The ball entered between the second and third ribs, near the left side of the sternum. He died on the 30th. On opening the body, two quarts of serous fluid slightly tinged with blood were found in the cavity of the pleura. The lung, reduced to a small mass, was adhering strongly to the spine. The pleura costalis exhibited marks of high inflammatory action. The pericardum was thickened and unusually distended, containing half a pint of a bloody serous fluid. The surface of the heart was inflamed; a transverse split, an inch in length, was found in the right ventricle, and the tricuspid valve had a lacerated circular opening in it. The ball was supposed to have lodged in the auricle, and to have fallen out during examination into the pericardium.

The editor adds the case of a Swiss, thirty years of age, who shot himself with a pistol-ball, which entered a little to the right and rather lower than the ensiform cartilage. There was no hemorrhage. At the end of forty-four hours he suddenly expired. The ball had passed through the anterior mediastinum, had penetrated the pericardium and right ventricle, and was thrown back, it is supposed, by the action of the columnæ carneæ, as it was found loose in the pericardium, with a piece of paper which had been used for wadding. There were about two quarts of thick fluid blood in each cavity, and half a pint of grumous blood in the pericardium.

ORIGINAL CONTRIBUTIONS.

REPORTS ON THE DISEASES OF FEMALES.

By EDWARD RIGBY, M.D.,

Fellow of the Royal College of Physicians, Senior Physician to the General Lying-in Hospital, Lecturer on Midwifery at St. Bartholomew's Hospital, Examiner on Midwifery to the University of London, &c.

The two following cases occurred at the Hospital for Women in Red Lion-square, and serve to illustrate some of the symptoms produced by a state of contracted os and cervix uteri.

E. H., aged thirty, married eleven years, never pregnant; a robust peasant woman.

May 19, 1846. Complains of constant pain in the vicinity of the umbilicus, extending into the pelvis, with a sense of bearing down and much pain of groins, especially the left. No appearance of catamenia for two years; has profuse leucorrhœa; no particular gastric derangement beyond confined bowels.

Examination per Vaginam.—Os uteri is so small as to be scarcely distinguishable; cervix very taper and flabby; uterus appears small and light; uterine sound passes with some difficulty, but goes to the natural extent, viz., two inches and a half.

℞. Pil. hydr., extr. coloc. co., aa. gr. v. o.n.

℞. Haust. gentianæ c. sennâ ter quotidie.

22. A metallic tent was passed up the canal of the cervix to the os uteri internum, but could be introduced no further; it was fixed in this position by a dossil of lint soaked in alum-water.

29. As the tent could not be passed further, I divided the anterior wall of the cervix, and in two days afterwards a tent was introduced to keep the canal open.

June 9. The tent, which has entered to its full extent, produces no irritation. Her general health is greatly improved.

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28. Removed the tent two days ago; there has been a pretty copious coloured discharge ever since the operation. This morning it has returned pretty briskly. She states that she is in better health than she has been for six years. I heard of her about a year afterwards, and that she was in good health.

R. S., aged twenty-eight; married eight years; never pregnant; tall, well formed.

May 19, 1846. Complains of pain in the back and loins, extending forwards to the abdomen, which is tender upon pressure, increased by walking, and also very severely at the menstrual periods; the catamenia are very scanty and pale; has otherwise good health; no leucorrhœa; bowels open.

Examination per Vaginam.—Os and cervix uteri natural in form and feeling, but very diminutive in size; uterine sound passes more than 2½ inches.

℞. Hydrarg. chloridi, gr. iij.; extr. hyoscyami, gr. vj.; ft. pil. ij. hâc nocte sumendæ.

℞. Haust. rhæi c. magnes. cras mane.

22. The catamenia appeared yesterday with much pain in the back and loins; the discharge scanty. Rep. haust.

26. Feels better in every respect; bowels open three times daily. Rep.

June 2. I divided the anterior wall of the cervix uteri; it neither produced much pain nor hemorrhage.

5. A metallic tent was introduced to its full extent.

9. Says she feels better than she has done for a long time.

26. Appearance much improved; feels and looks quite well.

These were two of the earliest cases which directed my attention to the local and general irritation produced by a contracted state of the os and cervix uteri. Although the health of both was stated to be perfectly good as regards the condition of the chylopoietic viscera, I thought it prudent to ascertain the effects of some laxative medicine before having recourse to local measures, and a certain amount of relief was thus afforded, although not to the extent of removing the symptoms for which they had sought admission into the hospital. The improvement in the appearance of each was very remarkable, especially of the latter. The cavity of the uterus being larger than natural in this case must be attributed to the obstruction which the contracted os and cervix produced to the free discharge of the catamenia, the result of which had been severe dysmenorrhœa at every period. Nothing like pregnancy has taken place in either of them. About a year afterwards the younger of these two patients began to suffer from pain at the lower part of the back, preventing her going about her ordinary occupations; she again applied for admission. The uterus was found retroverted, but the canal of the cervix perfectly healthy and well dilated. She wore the supporter for the usual time, and returned home much relieved, since which I have not heard of her.

Having considered some of the organic forms of sterility, I come to the other division, viz., where it arises from functional derangement. The ovary, being the organ in which the earliest changes connected with conception are produced, claims our notice first. That it is liable to subacute and chronic inflammation, I have shown in the cases reported Jan. 18, Feb. 1, 15, and March 8, 1845; I have also pointed out the fact, that dysmenorrhœa with exudations is generally, if not always, dependent upon this condition of the ovary, and that profuse and very obstinate menorrhagia is also an occasional result. It must, therefore, be self-evident that, so long as this state of the ovary continues, there can be little chance of conception taking place, and that the peculiar function of the organ must be suspended.

Mrs. B., aged thirty-four, mother of eight children.

Aug. 8, 1845. Pale, anemic; complains of darting pains through the pelvis, of pain on sitting down suddenly, of pain in the left groin, and a painful sensation of dragging in the back; anemic headache; slight leucorrhœa; bowels habitually costive.

She continued to suckle her last child for fifteen months, until the catamenia had appeared twice. She then went three weeks over the next period without any appearance, when, in consequence of overstraining herself, as she supposes, a profuse discharge came on, with all the appearance of a very early abortion; since which has had repeated and profuse discharges, which have much reduced her strength.

Examination per Vaginam.—Uterus somewhat retroverted, so that the sound passes backwards. In the recto-vaginal pouch a tumour can be felt as large as a walnut, soft and excruciatingly tender when touched. The point of the sound does not pass into this tumour (which would be the case if it were the fundus uteri), although the sound passes through the os uteri rather beyond the usual distance; nor does the tumour move until the fundus uteri is carried upwards and forwards to its full extent, and then it rises only a little.

Examination per rectum shows the same mass in the recto-vaginal sac, and the point of the sound evidently in front of it; it is evidently the left ovary displaced and much inflamed. Hirud. vj. ovario sinistro.

℞. Pil. hydrarg, gr. iij.; ferri sulph., gr. ij.; ext. coloc. co., gr. v. M. ft. pil. ij. o.n.

℞. Acidi hydrochlor. dil., acidi nitrici dil., aa. ℥j.; infus. gentianæ co., infus. sennæ co., aa. ℥iv. M. ft. mist. cujus sumat. cochl. magna. ij. bis die.

25. Leeches were not applied; is much better in health; the pains of which she complained are much less.

Examination per Vaginam.—Pressure at the posterior part of the vagina on the left side still excites pain, but nothing like what it did the last time; the uterine sound again passes backward; the posterior wall of the uterus appears thickened, but this is not at all tender.

Examination per Rectum.—The swelling which I before felt in the recto-vaginal sac is greatly diminished, although still tender.

℞. Ferri sulph., gr. ij.; extr. hyoscyami, gr. iij.; extr. coloc. co., gr. v. M. ft. pil. ij. o.n.s.

℞. Acidi sulphurici dil., m. x.; decoct. cinchonæ, ℥j. M. ft. haust. bis die sumendus. Let her take a little Rochelle salt (sodæ pot. tart.) every morning, and a Plummer's pill once a week.

29. Bowels not well opened; felt sick and bilious to-day, and did not take the bark mixture. Pt. mistura.

℞. Pulv. rhæi, potassæ sulph., aa. ℈j.; mannæ opt., ℥ij.; sp. myrist., ℥ss.; aquæ carui, ℥jss. M. ft. haust. primo mane sumendus.

Sept. 1. Has caught a violent cold, with severe cough; bowels open; no pain about the pelvis. Is obliged to discontinue the bark.

Oct. 8. The catamenia appeared on the 24th, quite naturally; she has continued the rhubarb and manna mixture, and the pil. ferri sulph. c. coloc., to which a little quinine has been added.

31. Catamenia appeared last week; not more pain than usual; bowels confined; tongue and general appearance improved; has hemorrhoidal congestion; lithic acid deposit in the urine, and much sacral pain extending along the left side of the pelvis. Hirud. vj., ano. Rep. pilulæ.

℞. Acidi hydrochlor. dil., acid. nitrici dil., aa. ℥j.; liquoris taraxaci, ℥j.; decoct. sarzæ co., ℥vij. M. ft. mist. cujus sumat. cochl. magn. ij. ter die.

Nov. 10. Writes word from the country that the leeches bled freely, but without relief, as the internal pain still continues, with numbness of the left thigh and leg. The pills last prescribed appear to agree well with her. I answer, that I regret not having applied leeches to the ovary, and request another examination.

24. Is much better in general health.

Examination per Vaginam.—Uterus still somewhat retroverted, but on restoring it to its natural position the tumour can no longer be felt in the recto-vaginal sac, as before, but the left ovary can just be reached in the usual direction, and is intensely tender to the touch; slight pressure upon it also produces the pain in the left groin. Let her apply the antimonial ointment to the painful spot in the ovarian region. Rep. med.

Dec. 23. The eruption brought out by the antimonial ointment produced neither pain nor irritation. The next appearance of the catamenia was perfectly regular, and with little or no pain. The bowels are not moved without medicine. Rep.

April 1, 1846. Health improved; has missed three catamenial periods; her breasts have begun to enlarge; has a sensation of tightness about the abdomen; slight sickness in the morning. Rep. pilulæ.

July 27. Is considerably advanced in pregnancy. Health tolerably good; bowels confined. Rep. haust. rhæi c., mannâ, &c.

Oct. 1. Was safely delivered yesterday of a female child.

Experience proves that abortion is one of the most common causes of oophoritis, and, from the injury which the general health usually suffers on such an occasion, this inflammation is very apt to continue for some time, and assume a chronic form; the exacerbations of irritability and congestion which it undergoes at the menstrual periods tend to aggravate this condition, and render it, in its turn, the cause of other affections, or even lay the foundation of organic disease. The symptoms of oophoritis, although by no means minutely given, are tolerably decisive. The pain in the left groin, and on sitting down suddenly, and the results of examination, place the latter beyond doubt; the presence of a tumour in the recto-vaginal sac, intensely tender to the slightest touch, is very characteristic of the ovary. I know of no other circumstances during examination per rectum or per vaginam where such utterly unbearable pain is produced by the slightest touch of the finger; and the manifestation of such suffering, when investigating the condition of the recto-vaginal sac, is of itself strong evidence that ovarian inflammation exists. In the present case the great value of Dr. J. Y. Simpson's uterine sound was strikingly shown, for not only did it enable me to discover the presence of a partial degree of retroversion, but, by raising the fundus uteri into its natural position, I could ascertain with perfect certainty that the painful tumour in the recto-vaginal sac was not the retroverted fundus, but the ovary. The displacement and inflammation of the ovary in cases of retroversion of the uterus is a subject which requires further investigation: they exist in very various degrees, and, although the inflammation can exist without much displacement, the reverse can never obtain; indeed, so frequently do we see an irritable or inflammatory condition of the ovary attend retroversion of the uterus, that I cannot feel certain of being correct in pronouncing the abortion to have been directly the cause of the oophoritis here, but rather the retroversion, which, on its part, had been produced by the flaccid condition in which the uterus had been left after the expulsion of the ovum.

There can be no doubt that retroversion of the uterus, in the unimpregnated state, especially where of some standing, is quite capable of causing ovarian inflammation; the strain on the broad ligaments, and consequent obstruction to the returning circulation of the ovary, producing considerable engorgement of this organ. This effect, however, varies very much in different cases of retroversion: in some it is very severe, as in the present instance; in others, of long standing, not the smallest trace of ovarian suffering is manifested: these latter, I must own, are rather the exceptions to the rule. By far the most painful ovarian affection, in connection with retroversion, is the descent of the gland into the recto-vaginal sac: the congestion of the ovary is necessarily much increased, it becomes much swollen and most excruciatingly painful. I have known

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it become as large as a small orange, the passage of fæces and every movement of the body being attended with fearful suffering, and on one occasion general peritonitis. Another result of oophoritis thus produced is severe menorrhagia, of which I have given a remarkable case (Feb. 15, 1845). A very severe case of this sort occurred to me a few months ago, at some distance from London, where the extent of the flooding had produced a dangerous state of exhaustion; the uterus was retroverted, and the left ovary considerably inflamed; the continued recurrence of profuse menorrhagia from the slightest cause put all thoughts of mechanical support out of the question; it was equally impossible to relieve the oophoritis by local depletion—firstly, because the cause of it (the retroversion) would be still in full force; and secondly, because the state of anemia (already becoming dangerous) absolutely forbade the attempt. I therefore directed the patient to use the prone position (by means of a large box on which a mattress, &c., were placed), and thus dispose the fundus uteri to incline forward by its own weight. The result was most successful: the hemorrhage ceased; the ovarian pain subsided; strength returned; and, under the able management of my friend, Mr. F. Elkington, of Birmingham, the uterine supporter was applied with the best results.

The effect of oophoritis in producing menorrhagia is a very interesting subject, and deserves careful attention, for there is scarcely any form of menorrhagia so severe as this, and, unless the real cause be detected, none more obstinate and difficult to treat. I therefore propose to offer another case or two of the same character.

I did not persist in having the leeches applied (Aug. 25) on account of the great improvement which had taken place in the state of the ovary, and also because, in addition to her weakness, she was apt to bleed profusely when leeches were applied; but the result proved that it would have been better if I had taken this step, for in all probability the ovarian inflammation would have been more quickly subdued. Although examination per rectum showed that the condition of the ovary was greatly improved, the pain on pressure in the left groin was evidence that more or less inflammation still existed on its anterior portion. I therefore applied the antimonial ointment, and produced immediate relief. The health improved still further, and pregnancy followed.

REMOVAL OF A LARGE STEATOMATOUS TUMOUR FROM THE LOWER JAW;

Weighing 15 lb., measuring 29 inches in circumference at its base, and 21 inches from the Jaw to the most dependent part.

By CHARLES CLAY, M.D., M.R.C.S., Manchester; Editor of "The British Record of Obstetric Medicine and Surgery," "Obstetric Monographs," &c.

Mr. Hazeldine, aged fifty-one, of Warburton, near Manchester, a gentleman of a good constitution, and generally in the enjoyment of excellent health, applied to me, accompanied by his medical attendant, to ascertain if I could safely and expeditiously remove a tumour, which, for nearly twenty-five years, had been his constant companion. It had never occasioned any serious pain, but proved extremely troublesome, and much in the way when he was in pursuit of his usual avocations. I perceived nothing peculiar in his appearance, with the exception of a very prominent abdomen under his clothing, which seemed to be rising towards the chest. On stripping, what appeared to be the prominent belly was, in reality, an enormous tumour, pear-shaped, and with a moderate length of neck, which enabled him, by exercising a little ingenuity, so to hide it with his dress as to make it appear an unusually large abdominal development. When dressed, with a large stock round his neck, it was difficult to detect the existence of so large a malformation.

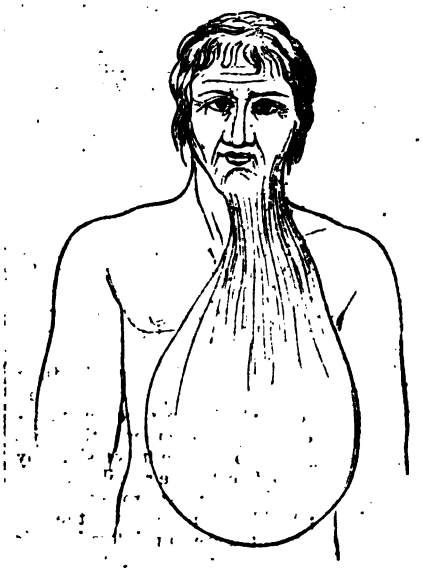
When in an erect position, the most pendulous part of the tumour extended two inches below the navel. Its weight was nearly fifteen pounds, the circumference at the base twenty-nine inches, and from the angle of the jaw to the bottom of the tumour measured twenty-one inches and a half. Its growth had been rapid at first, but subsequently extremely slow, and it was not much under its present size twenty-three years ago. Having instituted a most careful examination, I concluded it to be a steatomatous tumour; and, having removed from his mind all impressions of its malignancy, I proposed its safe and expeditious removal, to which he immediately consented. He had inhaled the chloroform, by way of experiment, under the direction of his usual medical adviser, with the view of using it should he undergo the operation; but its effects were so unpleasant and of such long duration, that I advised him to meet the operation without it, as it would neither be painful, nor would it occupy more than five minutes in the performance. My patient at once agreed to this proposition, and Saturday, the 19th of February, was fixed upon for its removal. On that day, with the assistance of my friends Dr. H. Reid and Mr. Ashton, surgeon, of Ramsbottom, and Mr. Taylor, surgeon, also of Ramsbottom, the operation was speedily accomplished, and requires no lengthened description, except that the supplying vessels were more numerous than we expected; as, before the operation, I was only enabled to detect the pulsation of one, and very faintly that of a second; nevertheless, no fewer than six arterial branches required ligature, and the mouths of the venous trunks were very large, and apparently varicosed. The wound was brought together by interrupted suture.

I may here remark, as a caution in similar operations, that, although the integuments were divided six or seven inches below the angular line of the jaw, still the retraction was so great after the removal of the tumour, that great difficulty was experienced in bringing the opposite edges together. My patient was put to bed, and all appeared quiet and satisfactory. After remaining an hour I left him, but four hours after was hastily summoned, in consequence of an alarm-hemorrhage. It appears that he made the discovery himself, and in attempting to rise to give the alarm to his attendant (his mother, who was rather deaf) he had fortunately fainted, which, for a time, checked the flow of blood. I arrived soon after, and immediately released a portion of the sutures, to ascertain if some arterial branch had escaped my previous notice. On examination, however, I detected none, except an extremely minute branch in one part, which I tied, but which would not account for the hemorrhage. The character of the blood which escaped was venous, and whilst the wound remained open no further flow occurred. After the lapse of about an hour, the edges of the wound were gently drawn together, and I left him to all appearances very comfortable. In about four hours after this, that is about ten hours from the operation, I was again called to him in consequence of the renewal of the hemorrhage, and Dr. Reid and myself were not long in being on the spot. I again liberated the sutures; the loss of blood had been extensive, but on the wound being opened, no further hemorrhage occurred.

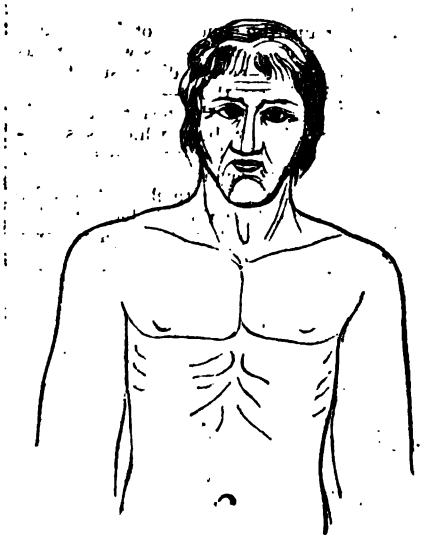
The blood was still of a venous character, and I now determined (in which Dr. Reid agreed) that healing by the first intention was not to be entertained, but that it would be preferable to apply pads of lint, with moderate pressure, over the open wound. This plan, with water-dressings, entirely checked any future escape of blood, which, in my opinion, entirely arose from the varicose state of the veins at the point of their separation. After the pads had remained for about thirty hours they were removed, and the wound was dressed with adhesive plaister, each time bringing the edges as near together as could be done. From this period the wound rapidly recovered, and my patient is now enabled to mix in that society with pleasure which he had previously shunned in consequence of the peculiar appearance the tumour was the cause of his assuming.

The following diagrams will afford the reader an excellent idea of this enormous morbid enlargement, the outline and appearance being very correct. As the incision was made much below the jaw—that is, between six and seven inches—it proves the necessity of an ample allowance being made, in all similar operations, for retraction.

The following sketch affords a view of the appearance of the tumour before the operation, and I am disposed to believe that few of your readers have seen so large a one.



The second figure shows that not the slightest remains of the tumour are now visible, the parts having assumed a perfectly natural appearance. It is in every respect correct, except that my patient is much better-looking as to features; but, when making the sketch, I was more intent upon giving a correct outline of the tumour, than a correct likeness of my patient.



CHOLERA.—Private letters from Stamboul inform us that the cholera was raging there on the 18th of February, and was attributed to the sale of putrid animal food.

Among the patents lately obtained in France is one by M. Lafond for the application of chloroform as a motive power instead of steam.

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THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

By GEORGE CORFE (Author of "A Popular Treatise on the Kidney," &c.), of the Middlesex Hospital.

(Continued from p. 407.)

It may be considered rather abrupt to turn from the consideration of the stages of diseases of the thorax to those of the eye; but the analogy appears to the writer to be so great that he cannot forbear the attempt to draw the same, thus: yet premising, however, that the eyelid and iris are to the globe of the eye what the muscles of respiration and ribs are to the lung.

If the eye is acutely inflamed, the lid and iris co-operate to exclude the light. If the lung is inflamed, the respiratory muscles diminish as much as possible the *quantity* of air inspired.

If the eye is the seat of an adherent iris, or of cataract, the light cannot get into the posterior chamber, as heretofore, on account of the physical change in the anterior chamber; so, in tubercular solidification, the air *cannot* get into the lungs, on account of physical changes in them.

Whilst in amaurotic patients the light is freely admitted; but, as it falls upon a diseased retina, it affords no assistance to the faculties of the mind, so it is, *cæteris paribus*, with emphysema, the air enters the lung, but affords little help in the process of oxygenizing the blood, and carrying on healthy life.

Thoracic diseases are usually acute in their origin, rapid in their progress, destructive in their issue, and so perplexing to a person unaccustomed to the constant use of auscultation, that any assistance offered to the faculty of sight by enabling the mind to detect more readily the true seat of these acute diseases must prove a help to the practitioner; besides which, some of the diseases already enumerated are so painless in their nature, so insidious in their progress, and so difficult of detection, without the combined exercise of the senses of sight, hearing, and feeling, together with heautophonics, that a mere interrogation of a man's sufferings tends but to confuse the practitioner rather than aid him in arriving at a correct diagnosis of his patient's complaint. This is especially the case in those painless diseases already enumerated, such as phthisis, emphysema pulmonum, œdema pulmonum, hydro-thorax, or œdema of the pleura, and bronchitis.

In summing up the amount of information which the study of heautophonics will afford us in the detection and accurate diagnosis of thoracic diseases, it will run thus:—

1. That, if the ear of the heautophonon is placed over a portion of lung which is solidified, the voice of the speaker becomes sonorous, vibrating, and more resonant.

2. If the pleura is filled with fluid, the voice of the operator is muffled; there is less vibration of tone upon the chordæ vocales than under a healthy lung.

3. If there is a tubercular excavation which is nearly dry, the voice in the heautophonon rises, is shriller, sharper, more nasal, and much more resonant than in the first instance.

If there is permanent distention of the lungs from emphysema, the heautophonon elicits a dull and dead sound, and which, if long continued, gives rise to a painful sensation at the centre of the operator's *sternum;* just the very opposite effect, however, is produced by repeated and long-continued use of the instrument over a *solidified* lung: in this case the *forehead* of the operator becomes jarred, from the reverberation of sounds, which the various sinuses in the head and face greatly augment, so that a novice in this curious study will find himself occasionally suffering from weight and distress over his brows, if he uses the voice too much over solid substances for one continued period of time.

But another singular feature in the use of the heautophonon in solidification of the lungs is this: that the patient *feels* and *hears* your voice in the chest, and *the extent* to which he does so will always correspond with the extent of the solidification. There was a striking instance of this fact on two occasions during this week. A man, large, bony, and well-built, on whom I used the instrument, laboured under severe cardiac disease, a double bruit, intermittent pulsations, large and distended jugulars, with a short and harassing cough. I had never ausculted his lungs, but was so convinced that all his ailments in the chest resulted from the advanced state of cardiac disease, and that the cough was the effect of delay of blood and congestion in the lungs consequent upon valvular disease, that I was greatly perplexed at the following incident:—I went into the ward and applied the heautophonon upon the præcordial region, in order to gain further information upon the alterations of heautophony, over an extensive surface, with which an immense heart would doubtless furnish my ear. I suddenly shifted the instrument to the subclavicular region of the same side, and again talked, when the shrill heautophonic rise was most marked. I was surprised at this, and, passing over to the opposite subclavicular region, I again talked, when the shrillness of voice ceased.

Was it possible, thought I, that pulmonary excavations can exist in such a subject! I repeated the experiment several times, and at length I ausculted him with my naked ear, and with the stethoscope, when pectoriloquy, amphoric or cavernous breathing, and slight gargouillement on coughing, were so manifest, that several students, who knew nothing of the spot where disease was suspected, ausculted his chest, and each one pronounced the existence of a cavity under the left clavicle. But the man observed, that he heard our voices go through his chest to the inferior edge of the scapula, which evidently denoted that there was some extensive tubercular solidification of the lung around this cavity.

The second instance was in that of a female, who obtained admission on the 22nd of June, on account of some severe dyspeptic symptoms. When she was visited this morning by us, I noticed her extreme emaciation, as her chest lay uncovered; and, on applying the heautophonon before I ausculted her, I pronounced that there was disease under both clavicles, but that a cavity existed under the left. We now proceeded to auscult her, and marked pectoriloquy was heard under the left, and a faint sound of the same kind under the right, clavicle. There was amphoric breathing under the former spot, and an absence of vesicular breathing under the right clavicle.

She observed to some gentlemen who stood around the bed, that she felt the voice, as we spoke, strike through her chest on both sides; thus satisfying my mind still further that solidification existed in both lungs.

It has been already stated, that in addition to the diagnostic aid obtained from the sense of hearing, seeing, and speaking over the chests of persons labouring under diseases of the respiratory organs, there is still much valuable information to be derived from the sense of feeling. Before proceeding to notice this subject, let me add that it cannot be too deeply impressed upon the minds of the younger branches of the profession, that the less a patient suffering from derangement and disease in the respiratory system is allowed to take any part in describing by conversation, or answering cross-examinations, concerning the rise and progress of his complaint and his present sufferings, the more accurate will be the diagnosis on the part of the student if these senses are brought into full exercise by him, inasmuch as the patient is preserved from a painful and tedious exertion, and oftentimes the information given by him is so confused and unsatisfactory that it tends to mislead rather than to aid the physician in framing a correct knowledge of the existing disease.

It has frequently been the source of much gratification to me to have been enabled to form a most accurate diagnosis in some thoracic diseases, whilst the patient has scarcely been interrogated more than once or twice during the whole examination. The valued [illegible] in these investigations have been physiognomy, heautophony, auscultation, percussion, and the sense of feeling.

With regard to the sense of touch or feeling, whenever there is increased resonance of the voice, or bronchophony, from solidification of the lung, whether such solidification is the result of tubercular deposition or hepatization, yet there is *felt*, when the flat hand is laid on the chest over the suspected portion of diseased lung, a vibration or thrill, as the patient talks, especially in the sonorous voice of a male patient; and oftentimes I have detected, by the sense of feeling, the presence of solidification of one upper lobe, by placing the hand under each clavicle of the patient whilst he has been freely describing his case, in its origin and progress: the vibration being manifest to the hand under one clavicle, whilst it has been altogether absent under the other. The subsequent auscultation of the individual has confirmed these suggestions or suspicions of the disease, which the sense of touch elicited. So, likewise, if the fingers are placed over the posterior surface of the chest on each side, in solidification of one lung from pneumonia, a vibratory thrill is communicated to the hand; you may be said to *feel* the bronchophony or resonance of the voice.

Whilst this vibration is felt over the solidified lung, there is a negative and equally valuable evidence obtained from the sense of feeling when effusion of air into the cells, or fluid into the pleura, exists. The natural rhythm of the voice is then not only diminished, but there is a total absence of any vibratory sound to be felt over the effused surfaces of the lung or pleura. When the patient talks and the ear is applied, the vibration, in the former instance, gives rise to bronchophony, and, in the latter case, the *non*-vibration of the voice leaves us with a negative evidence not less valuable.

The assistance afforded me by this of "feeling for diseases," in a few instances of phthisical patients, who have had some dread at the suspicion of the real nature of their disease, and have consequently hesitated to submit to auscultation, has helped me more than I can well express; and by the time I had obtained a tolerably accurate knowledge of their symptoms, and had almost made up my mind, from the physical signs already alluded to, as to the real state of the upper lobes, they have almost unconsciously allowed me to apply the stethoscope, and thus verify my preconceived notions of their malady.

Whenever the bronchial mucous membrane has been the seat of repeated attacks of inflammation, there is an intumescence and thickening of this surface, which renders it liable to fresh outbreaks of bronchitis, and the individual is very prone to suffer on the slightest alteration of temperature, and from increased moisture in the atmosphere. If such a patient gets ill fed, overworked, keeps late hours, and is exposed to foggy, damp weather, another and far more serious train of symptoms arise, which have carried off a large number of the poorer classes during the late inclement winter. I allude to dropsy or œdema of the lung. This disease arises from a sudden emission of serum from all the pulmonary cells, and the emphysematous portions especially, so that the lung is, as it were, drowned. Expiration now is a most distressing act, and it is performed with unusual exertion; the morbid sounds accompanying this disease are chiefly heard as the patient strives to get rid of the compressed air, so that it drives the viscid secretion of the bronchi against those reflected portions of the mucous membrane which pass from bronchi to bronchi in their divisions, and thus the air impinges upon this tumefied membrane, and produces various modifications of tone, known as wheezing, snoring, whistling, squeaking, &c. &c.

A man, by trade a painter, was lately admitted here in the forenoon, and as he was in the act of getting out of the cab he expired. The fellow-workmen who accompanied him de-

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clared that he had been doing a hard day's work, and had continued at it until ten o'clock the preceding night; that they had heard him make no complaint, but that, on the morning of his death, he went to work as usual, when he said that his asthma, to which he had long been subject, was so bad that he should leave off, and go home; however, they insisted on his seeking for advice, and accordingly they brought him here, as already mentioned. The lungs, on examination of the body, were found gorged with fluid; did not collapse on cutting into them, and an enormous quantity of clear serum oozed out from every part. There was emphysema also, but no disease of the pulmonary texture beyond this change. The lungs presented a sodden appearance, just as if they had been kept soaked in water to the first stage of putrefaction.

Hepatic and cardio-hepatic dropsy are of such frequent occurrence, and are so repeatedly combined, that it may be said that the one disease scarcely ever exists without the introduction of the other. Disease of the heart generally leads on to such hepatic derangements that inflammation of the vaginal sheaths of the lobules, thickening of the lobular sheaths themselves, and pressure upon their enclosed lobules gradually supervene. It is not to be doubted, however, but that an active form of inflammation is frequently set up in the delicate ramifications of the capsule of Glysson itself, whereby the various parts of this membrane are left hypertrophied, and portal congestion is the result; this morbid change is the common effect of that excited state of the mucous membrane of the stomach and duodenum, under the influence of which gross livers and spirit-drinkers are continually the subjects of. Whether such a result is the effect of the constant application of highly-seasoned food on the one hand, or of ardent spirits on the other, to the delicate surface of the mouth of the biliary duct, or whether it is the consequence of the introduction of spiced viands or of alcohol into the system, it is difficult to decide; yet that the biliary ducts, or their investing sheaths, take on a low form of inflammation in such persons, and that this morbid action is continued along the whole course of the biliary system, does not seem to admit of a doubt. If the vaginal processes of Glysson's capsule, which is a cellulo-vascular membrane, become thickened, that morbid process will then extend itself to the minutest ramifications of the lobular vessels, so that the secreting biliary plexuses will soon become involved in the general disease. Where cardiac disease is alone the source of dropsy, the effusion shows itself in those parts of the body most remote from the seat of the disease. Œdematous ankles, cold extremities, and a mottled state of skin are some of the early physical indications of this disease; but when the liver is the main source of dropsy we usually find the abdomen tense, swollen, and painful in the epigastric region, before the legs partake of the effusion. Percussion will afford us information of the dimensions of the liver, and its relations to that of health.

HEPATIC DROPSY.

John Moren, 40, upholsterer, admitted June 3. Countenance thin, and jaundiced; features pinched; œdema of the lower extremities; abdomen large, without perceptible fluctuation; fulness, hardness, and tenderness around the epigastric and right hypochondriac regions; orthopnœa; dyspnœa on exertion; pulse 80, small and feeble; cough, some expectoration; tongue pale and flabby, moist, but covered with a thin, white fur; urine diminished, high-coloured, but contains no albumen. N.B. Has a sore on each ankle by blisters applied there; acknowledges that he is a hard spirit-drinker.

Auscultation.—Right lung—*Front:* Free and vesicular breathing everywhere above the mamma; crepitation everywhere below. *Behind:* Respiration only audible for the space of two inches along the spine; great resonance of the voice along the scapula; bulging of the ribs on this side; percussion dull where respiration is not heard. Left lung—Free and vesicular in every part; a loud "mewing" bruit is heard in the course of the aorta from its origin, which diminishes towards the apex of the heart, but is loudest at the top of the sternum.

On the 16th the following note and diagnosis were entered in the Case-book:—"Expectoration deeply tinged with blood; respirations everywhere attended with slight rhonchus throughout the right lung, with some crepitation; the cardiac sounds unaltered; œdema increasing. Partial condensation of the right lung, with pleuritic effusion; pulmonary apoplexy; hypertrophy of the heart, with advanced disease of its inner membrane; liver hard, but not abnormal in size." He died on the 22nd.

Post-mortem Examination.—Chest veins enormously distended with blood; traces of old pleuritis, and a pint of deeply coloured fluid on each side; trachea pale; bronchi gorged with serum; upper and middle lobe of right lung loaded with sero-sanguinolent fluid; lower lobe solid and heavy, sunk in water, and presented a dirty-red colour.(a) In the centre of this lobe there was a distinct apoplectic portion, and in the lower part were several spots of a similar character. No fluid escaped on slicing pieces of the lung in the neighbourhood of the apopletic portions, and a distinct line of demarcation was seen between the hepatized and the apoplectic portions. Left lung universally crepitant, though gorged with serum.(b) Pericardium contained half a pint of dark serum; heart increased to one half its usual size; the right auriculo-ventricular opening was doubled in its capacity, but not hypertrophied in its walls; the endocardiac lining, as well as that of the vena cava, was here so opaque and citrine-coloured, that it gave to the latter the appearance of an aorta; beyond a few scattered patches of thickened membrane, nothing further was observed throughout the heart, but just above the orifice of the right coronary artery there was an excavation, as of an old ulcer, with thick, hardened edges. From this spot to the end of the arch of the aorta, this vessel was enormously distended, having two more similar excavations—one, an apparent aneurismal pouch—but adjoining each other, and occurring before the branches were given off. The membrane was everywhere much thickened, but its edges of the two last sacs were not defined, as in the former one.—Abdomen contained a gallon of serum; the liver was much increased in size, but the lobules were hard, hypertrophied, and pale, surrounded by vascular portal vessels, the quondam "nutmeg" liver, so called. The kidneys were healthy.

(a) Vide "Laennec," vol. i., p. 396.
(b) Vide "Laennec," vol. i., p. 379.

WESTMINSTER HOSPITAL.

Reported by HENRY BUTLER, Esq., M.R.C.S.

CASE OF SECONDARY SYPHILIS, WITH UNUSUAL CHARACTERS.

Albert Settle, aged twenty-two, an unhealthy-looking man, was admitted into Matthew Ward, under the care of Mr. Phillips, on September 22, with syphilitic lichen extending over the whole body.

Several months ago he had primary syphilis; he had a small ulcer, for which he took mercurial pills, so as to induce salivation; he afterwards took sarsaparilla. In about three weeks from that time, he felt quite well. About five weeks before his admission he had slight sore throat, which soon passed away; it was followed by pains like rheumatism, which affected the whole of the long bones and joints. This continued up to the time of his admission, and was accompanied by loss of flesh.

22. To have pil. cal. c. col. gr. x. h.n.; and ung. hydr. fort. ʒj. to be rubbed on the inside of the thighs every night. Full diet and a pint of porter.

29. The eruption has already become much paler; on the face it has nearly disappeared.

Oct. 4. The face is now quite smooth; in other parts of the body the eruption is dying off. There is perceptible mercurial action set up. To omit the inunction.

11. The whole surface is nearly free from the eruption. To rub in once in four days, to maintain the mercurial action for three or four weeks.

14. There is a slight reappearance of the eruption, while the system is clearly under mercurial influence.

18. The eruption is now very slight; and as it was important he should leave the hospital, and as he had the means of taking care of himself, he was allowed to leave on the 19th, with an injunction to rub in so as to keep up the slight tenderness of the mouth for three weeks or a month.

22. He presented himself to-day, with almost total loss of vision; he can barely distinguish light from darkness. There is a total inability to raise the eyelids, or to direct the eyes. The left conjunctiva is injected, both irides are natural, but the pupils are somewhat dilated. The surface of the body is not free from the eruption, though it does not exist to any great extent. He has slight giddiness; the tongue is slightly coated with a brown fur; the pulse 80, weak; and there is no loss of power in any other part of the body. It appears that he went to work at Philp and Whikers' the day after his discharge, in a warm shop, and that he has not been exposed to cold. He lived three doors from the workshop, and never felt himself in better working plight. The left eye began to fail yesterday, the right eye to-day. He slept well last night, and feels nothing the matter with him to-day, except the loss of sight. Mr. Phillips ordered him to have a mustard emetic immediately; cat. sinapis nuchæ; and pil. galbanum, ext. col. ana. gr. v. h.s.o.n.

23. The left pupil is irregular and more dilated than the right; the conjunctiva is still injected; the vision of the right eye is returning, he can distinguish any object for a moment, when very near; there is still great intolerance of light, and inability to raise the eyelids; there is no decided pain either in the head or the eyeballs; the bowels are freely opened; he slept well during the night; the appetite is very keen. To have full diet, and a pint of porter. Emp. lyttæ temporibus.

25. No headache; the vision of the right eye is improved, that of the left is unchanged; he has no power of directing the eye; the pupil, however, is more regular; there is a small blood-like spot on the nasal side of the iris. To have emp. lyttæ nuchæ. He has still no power over the eyelids.

27. Last night he was kept awake by a throbbing pain in the left eyeball; the pupil is still irregular, but vision is improved; the spot still remains, and the iris is more bright than the other. Emp. lyttæ temp. sinist., to be dressed with ung. hydr.; hirudines vj. palpebris.

29. The left iris is more irregular and cloudy; the conjuctiva more vascular; the power of raising the eyelids is much improved, but the throbbing pain continues. Hydr. chlorid., gr. j.; opii, gr. ss. ter die sum.

31. The right eye is nearly well; the left somewhat improved; vision is better; the power to raise the eyelids has increased.

Nov. 2. The pain in the left eye has ceased; there is less vascularity of the conjunctiva; less irregularity and less cloudiness of the iris. He has been troubled with a little diarrhœa. Mist. cretæ, ℥jss.; pulv. Doveri, gr. v.; conf. aromat., ʒ ss. 4tis horis.

5. Discharged cured; both eyes, as well as the skin, being in a natural state.

A FEW REMARKS ON THE POLARISCOPE.

BY J. STEVENSON BUSHNAN, M.D., Fellow of the Royal College of Physicians of Edinburgh.

Having lately had occasion to make some experiments with the polariscope, to ascertain the presence of sugar in urine, I venture to describe and recommend the instrument, which consists of a glass tube sixteen inches long, and capable of being hermetically closed at each end by

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means of a small plate of glass secured by a brass ring and screw. After having completely filled the tube with the fluid about to be examined, which is done by holding it vertically—taking care that no globule of air shall be introduced—and then closing it, a ray of linearly polarised light is made to traverse it, by fixing to its extremity, directed towards a white cloud, either a Nichol's prism, or a crystal of double-refracting power, as a tourmaline cut parallel to its axis. A second prism, or a second tourmaline, fixed at the other extremity to which the eye is applied, permits us to see, through a circular division, in what degree the direction of the polarised ray is turned aside by the action of the liquid; and the angle thus formed is proportional to the length of the tube and to the quantity of active molecules, that is to say, to the density of the sugar, which seems to be the only active substance contained in the urine. As the fluid is generally high-coloured and of feeble action, it is not possible to observe the colours developed by the unequal action of the liquid upon the different particles of white light; and consequently it is unnecessary to employ Nichol's prisms, which, besides, are not always to be obtained. The two tourmalines are quite sufficient, provided they are not too highly coloured; and it is very easy to observe the total disappearance of the ray of light, when, by turning the eye-piece, the tourmalines are made to cross each other at right angles. In placing the tourmalines in this position before the introduction of liquid into the tube, the index of the circular scale attached to the eye-piece being at the same time placed at zero, no ray of light is seen, while the use of an active fluid causes it to reappear more or less distinctly. On slightly turning the eye-piece with its contained tourmaline either to the right or to the left—and as it is turned the angle formed is marked by the index on the scale—we find that at a certain point the former obscurity is re-established; and it is the angle obtained at the moment the ray of light disappears and the obscurity is complete, that determines the quantity of saccharine matter contained in the fluid.

A circumstance unfavourable to this kind of research is the commonly incomplete transparency of the urine, even after repose and filtration. Urine apparently limpid, when placed in the tube seems anything but clear; and a quantity of diffused light, mixing with that regularly transmitted, further impedes distinct vision; nevertheless, even when in some degree turbid, it is always possible, although with some indistinctness, to perceive the action of the ray transmitted through the tourmalines and saccharine urine.

As it seems to me, this process is much superior and far more simple than that recommended by M. Biot, employed by M. Bouchardat ("Repertoire Générale des Sciences Médicales," vol. xviii.), and described by Dr. Golding Bird (*urinary deposits*), to detect sugar in urine by its action on polarised light. The instrument is less complicated; and, besides which, saccharine urine is seldom sufficiently clear to allow the colours produced by circular polarisation to become visible. Again, it is at any rate preferable to the usual modes of testing suspected urine, since no long and complicated chemical manipulation is required; the presence of sugar can be ascertained at once, and, if needs be, in the presence of the patient; and, when ascertained, its increase or decrease can be determined during the progress of treatment, by the greater or lesser angle obtained by the altered direction of the polarised ray passed through the fluid—the greater the quantity of sugar, the greater being the angle indicated upon the scale.

NAVAL APPOINTMENTS. — Acting Assistant-Surgeon: George F. Bankes, to Plymouth Hospital.—Assistant-Surgeons confirmed: William H. Clarke, to the Tortoise; John T. Caddy, to the Poictiers.—Surgeon: P. Leonard, to the Poictiers.—Acting Assistant-Surgeon: Wm. Baikie, M.D., to the Victory.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meeting of March 13; M. POUILLET in the Chair.

INHALATION OF MEDICINAL VAPOURS.—M. Poggiale, professor of chemistry at the Military Hospital, Val de Grâce, communicated a fact which he had recently discovered, viz., that inhalation of the vapour of aldehyde produced insensibility in a more prompt and complete manner than ether or chloroform. Several dogs had been rendered completely unconscious in the space of forty-five seconds; no accidents had occurred. On two occasions the inhalation was continued during ten minutes, and the animals spontaneously recovered. (Aldehyde is a substance obtained by the distillation of sulphuric acid, water, alcohol, and peroxide of manganese. The produce of distillation should afterwards be rectified with chloride of calcium; it boils at 89° Centigrade, and is much less expensive than chloroform. Its very unpleasant odour will, however, constitute a great objection to its introduction into practice as an anæsthetic agent.)

We extract from the "Annales de Thérapeutique" the following remarks on the aspect of the hospitals since the revolution of February:—

HOPITAL SAINT LOUIS.

About eighty wounded subjects were admitted, one half of which were placed in the wards of M. Jobert, the other half in those of Dr. Richet. The wounds may be divided into three classes—burns, more or less extensive; crushings of limbs due to the fall of trees, of pavements, or of barricades; and gunshot wounds.

Burns.—Amongst the patients of the Hôpital Saint Louis, one case of extensive burn first attracted our attention; the subject was a vigorous lad of fifteen, who had entered the barracks of the Municipal Guards of the Faubourg St. Martin, after the troops had been dislodged. The barracks were on fire, and, the crowd being excessive, several persons were severely burned. The soldiers perished in the flames. The face, neck, and both hands of the patient, whose history we now sketch, had been burned in the second and third degrees. A sort of mask of linen, covered with spermaceti ointment, was applied to the face; and the forehead, cheeks, nose, chin, and neck were covered with bladders half filled with ice; the same treatment was employed for the hands. The wounds rapidly assumed a healthy appearance, no visceral reaction was observed, and the patient is rapidly progressing towards a complete cure. We have already, on various occasions, mentioned M. Jobert's method of treatment of burns in the *Medical Times*, and on this occasion again we take note of its beneficial effects.

Crushings of the lower extremity, with comminuted fracture, were, in M. Jobert's wards, four in number: in three cases the leg, and in one the thigh, was crushed. Two of the three former were unattended with any injury of the skin, and the consequence, notwithstanding venesection and local emollient applications, had been excessive distention of the affected limbs: in each of these two cases, M. Jobert, with the intention of preventing gangrene or extensive phlegmonous suppuration, performed two incisions, nine centimètres in length, upon the most tense regions. This practice was that of Larrey, but is not that most generally adopted, such incisions being looked upon as dangerous in cases of comminuted fracture. As to the subject whose thigh was crushed, his wound was produced by the fall of one of the large trees which were cut down on the Boulevards for the purpose of erecting barricades. The femur was fractured, and the soft parts of the anterior aspect of the thigh lacerated and mortified in the extent of four square inches. This patient, aged forty, is in a most precarious state; the wounds are dressed with cold linseed-meal poultices. We will give in our next number the subsequent history of these severe cases.

The *gunshot* wounds observed at Hôpital St. Louis were very numerous. We will notice the most interesting instances.

The Face.—A patient, aged forty, was wounded in the face. The ball penetrated at the right commissure of the lips, and issued at the angle of the maxillary bone at the same side. This bone was fractured in three places, viz., at the two orifices made by the bullet, and also at the opposite side. The left superior maxillary was also broken. The soft parts were lacerated from the right naris to the chin. Several fragments of bone were extracted, and the edges of the laceration brought together by sutures, and united by primary adhesion, leaving very little deformity.

In the *clavicular region* two wounds were observed: in one the bullet passed through the right shoulder and lung; expectoration of blood and traumatic pneumonia took place, but, the subject being young and vigorous, several venesections were performed, and the case progressed favourably. In the second case the ball entered in the neighbourhood of the subclavian artery, and, a considerable trombus having formed, an injury of that vessel was apprehended. But, the pulse of the radical artery not being altered, M. Jobert inclined to a different opinion. Repeated venesection was again used in this case, and produced satisfactory effects.

In the *abdomen* wounds have been scarce; one case only was admitted into the wards. The bullet penetrated in the lumbar region, and was lost at first in the abdomen. Mild symptoms of peritonitis made their appearance, and a swelling formed in the groin; it has not yet been opened. We will return to this case.

Several cases of wounds of the *limbs* were admitted, but none required amputation.

The general features of M. Jobert's practice in all these various cases are the following:—A general system of preservation of the wounded extremities; the frequent use of the lancet; the application of cold poultices; the immediate union by suture of certain contused lacerations, chiefly in the face; and deep scarifications performed upon limbs affected with comminuted fracture without wounds of the integument.

HOTEL DIEU.—M. BLANDIN.

Wound of the Skull.—A bullet passed obliquely from right to left over the parietal bones, which were fractured in the extent of two inches and a half, the dura mater being injured. A considerable depression remained in the corresponding part of the head; complete paralysis of the lower, and incomplete loss of power of the superior, extremities followed. The patient was a man, aged thirty, of weak constitution. After unsuccessful endeavours to raise the depressed fragments, M. Blandin applied the trephine on the right side of the mesial line. The fragments of bone were raised and some of them removed, the dura mater was lacerated, and the surface of the brain was found in a contused state. Soon after the operation, the paralysis diminished in the left leg, and disappeared from the arms. Venesection was repeatedly employed. The wounds, at present in full suppuration, are dressed with cerate, lint, and over all with a bladder half filled with ice; a portion of brain of the size of a walnut protrudes through the orifice. On the sixth day after the operation the patient accidently fell out of bed, and abundant hemorrhage occurred. We will return to this case, the issue of which must still remain doubtful.

Wound of the Face.—The chin and branches of the inferior maxillary were in another patient completely shot away, leaving an enormous irregular gap, through which the tongue hung downwards in a painful and swollen state. The dressing employed in this frightful mutilation consisted of bands of adhesive plaster, which supported the lacerated edges of the cavity and the tongue. This organ remains exquisitely painful, the suppuration is abundant, and hopes are entertained of the preservation of life.

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Two cases of *wound of the chest* have been admitted: in both hemoptysis and emphysema occurred, and were promptly relieved by venesection; in neither did the injury of the lung appear to add much to the severity of the wounds.

In the *abdomen* the wounds were most fatal. Almost all the patients died in a short time: a remark the more important, as abdominal wounds are generally considered less dangerous than injuries of the chest.

Amputations.—In no case hitherto admitted into the hospital did primary hemorrhage take place. The wounds of the arm, forearm, and thigh were generally treated without operation, when the injury of the bone was not extensive; when the affected part was very muscular, or furnished with considerable aponeurotic textures, incisions were performed. In two cases amputation was resorted to. The first was a soldier of the Municipal Guard, a large and athletic subject, who had been shot in the shoulder, that region being much mutilated; another bullet had passed through the thigh, and the chin had been lacerated by a blow from a bayonet. The removal of the arm from the shoulder was judged indispensable, and it was with difficulty that sufficient flaps were dissected; these flaps have been struck with gangrene, and the issue of the case will probably be fatal. In another instance, the elbow having been fractured, the arm was amputated. Altogether about fifty patients were admitted in M. Blandin's wards, and an equal number are under the care of Professor Roux.

HOPITAL DE LA CHARITÉ.

The same number of wounded was admitted—viz., 100—divided between the wards of Professor Velpeau and Professor Gerdy. A large proportion of the patients died shortly after their admission, the wounds of the limbs being here very serious, and immediate amputation having in most instances been obstinately objected to. Some patients consented tardily to operations which presented only slender chances of success. M. Velpeau removed in one the arm from the shoulder-joint, and death occurred within twenty-four hours. He amputated the thigh in another case, which has also had a fatal termination.

Burns.—In M. Gerdy's wards was admitted a man, who, having become intoxicated in the well-stocked cellars of the Tuileries, left the palace, and lodged himself in one of the royal carriages which the mob was hurrying away along the quays. The vehicle was set fire to, and the unfortunate man did not recover his senses before his head and hands were frightfully burned. Dressing with simple cerate was resorted to, and the febrile reaction awaited before further treatment was instituted. On the fourth day dysphagia made its appearance, and at the same time pneumonia, speedily followed by death. In this remarkable case the phlogosis extended from the face to the respiratory organs, instead of being propagated, as it more usually happens, towards the brain—a fact which may be partly accounted for by the state of intoxication of the patient, a condition which, no doubt, predisposed him powerfully to pulmonary congestion.

In one case of division of the *lip* by a bullet, M. Gerdy brought the lacerated edges together by suture, and primary adhesion followed.

Four cases of penetrating wounds of the chest were admitted. Expectoration of blood, emphysema, and circumscribed pleuritic effusions pointed out the visceral lesion. These cases are doing well under the influence of venesection, abstinence from food, and repose.

In the limbs the injuries were most numerous. No scarifications were performed by M. Gerdy or M. Velpeau, who both consider this mode of treatment injudicious in gunshot wounds.

The authors of the article of the "Annales de Thérapeutique" state that 12 cases of wounds with comminuted fracture of the femur were observed, in which the patients refused to submit to immediate amputation. Seven of the twelve died during the period of reaction which followed; two of the remaining five consented then to amputation, one of whom died promptly, and the other was not expected to live. The remaining three are exposed to the dangers of abundant suppuration, and will perhaps die also in the end, whereas timely operations might have saved two-thirds, or at the least one-half, of the patients.

ERUPTION ON THE ORGANS OF GENERATION PRODUCED BY FRICTIONS WITH TARTAR EMETIC OINTMENT UPON OTHER PARTS OF THE BODY.—Dr. Ch. Simeons, of Mayence, states that frequently frictions made with ointments containing tartar emetic upon various parts of the body occasion eruptions upon the genitals, notwithstanding all the precautions taken to prevent the transmission of the ointment with the hand to these parts. The author is of opinion that this secondary eruption is the result of the introduction of the drug into the system; and brings forward as a proof that nothing similar is observed on the eyes or nose, which are at least as often in contact with the hand as the organs referred to.

CONCOURS FOR THE CHAIR OF CLINICAL SURGERY.

CANCER OF THE SKIN.—A THESIS BY M. MICHON.

A cutaneous affection should be looked upon as cancerous when, by ocular inspection, one of the morbid tissues described as forming cancer can be recognised, and when, at the same time, the disease has a tendency to spread, to ulcerate, and to reappear after being removed.

MORBID ANATOMY.—Scirrhus and cerebriform tumours can both be met with in the skin:—1. Scirrhus is by far the the most frequent as a primary disease. Tumours of this nature are hard, yellowish, very scantily furnished with vessels, and exude a peculiar fluid. When microscopically examined, they present numerous and irregularly distributed fibres and cells, the nature of which is chiefly to be deduced from their dissimilarity to each other. Scirrhus often begins by an ulceration, and in most instances by well-circumscribed tubercles or patches. 2. Encephaloid tumours of the skin are generally soft, and always bluish and vascular internally. When examined with the microscope, they present fewer fibres than scirrhus. 3. Malanosis is sometimes found combined with these two forms of cancer. 4. Epidermic tumours should be divided into two sorts: in the first place the purely epidermic form; and secondly, another affecting also the papillæ of the skin. The former are in most cases of a cancerous nature, but the tissue has not yet undergone the transformations which give to the cell its special characters, and which, at the same time, communicate to the disease a greater degree of malignity. In order to examine the history of cutaneous cancer in a complete manner, the author successively studies the diagnosis of cutaneous scirrhus, of encephaloid tumours, and of melanic cancer. He then establishes the rules of treatment, and, finally, describes cancer of the face, of some other regions, and concludes with some remarks on keloids and on tumours developed in scars, the history of which has not yet been fully sketched.

SCIRRHUS.—Two forms should be distinguished, viz., tumours which are not ulcerated, and ulcerated scirrhus. 1. The former is characterized by solitary or grouped tubercles, of small size—from that of a pea to that of an olive; these tumours are seldom pediculated, and may occupy any part of the skin, although they more usually invade the face. At first their colour is that of the healthy skin, and they are indolent; but after a time they acquire a reddish hue and become the seat of pain. The progress of the disease is remarkably slow, but a period at last arrives when transformations take place which leave no longer any doubt as to its nature. The tumours mostly ulcerate. M. Rayer reports a case in which a cure was effected by spontaneous gangrene; and M. Velpeau describes a ligneous transformation which he has personally had occasion to observe. Another form of scirrhus is that which has received the name of *molluciform*: it is characterized by flat tubercles, the surface of which is covered by wrinkles, which may be symmetrically arranged. The disease, says M. Michon, is more frequent in advanced age, and probably in the female than in the male sex. The diagnosis is not generally difficult; it is only in primary tubercles that any doubt can exist. They can be confounded with lupus and with syphilitic productions; but the tubercle of lupus is softer, and occurs in young and scrofulous subjects; the ulceration takes place at an early stage; the tumours are surrounded with an extensive red areoli, characters which are not found in scirrhus. As to syphilitic tubercles, their softness, the absence of pain, the presence of white superficial scales, and the history of the patient, assert the diagnosis.

2. ULCERATED SCIRRHUS.—When the period of ulceration approaches, the appearance of the tumour changes: it becomes uneven, soft in some parts, and acquires a darker colour; a number of crevices form on the surface, and, uniting, constitute the ulcer. The sore is irregular, of a dull-red colour, even, and often granular. The edges stand out in relief on the skin which remains healthy in the neighbourhood, or presents tubercles in a crude state. The ulcer may be dry, or covered with yellowish crusts, adhering sometimes obstinately to the surface. Lancinating pains soon show themselves; the lymphatic glands in the vicinity participate in the disorder; the centre of the ulcer becomes excavated, or gives rise to fungous excrescences; and cachexy begins. Ulcerated lupus might be mistaken for the disease now under consideration, if it were not recollected that lupus is a malady of youth, scirrhus one which affects the aged; lupus a superficial, and scirrhus a deep, ulcer. The prognosis is less serious than in ulcerated cerebriform cancer, because the skin only may be concerned in scirrhus, whereas encephaloid occupies several tissues simultaneously.

CEREBRIFORM CANCER OF THE SKIN.

Encephaloid cancer of the skin, much more rare than scirrhus, may be referred to two types: globular tumours, and tumours developed in nævi. Globular encephaloid tumours of the skin are more or less voluminous, hard, elastic, and at first present no change of the natural colour of the part; an obscure fluctuation can be recognised when softening takes place. The second form is constituted by congenital tumours, nævi, which degenerate and become the seat of encephaloid degeneration: in these cases the disease may remain local for many years, until some accidental cause calls into action the latent cancerous predisposition. The globular variety affects particularly young subjects; the second description is chiefly observed in youth and in the adult. All nævi may degenerate, but they are more particularly noticed in those regions where perspiration is abundant.

With regard to diagnosis, encephaloid tumours of the skin are more voluminous than those formed by scirrhus; they affect younger subjects, and are exclusively met with in childhood. When ulcerated, their secretions are more abundant, their hemorrhages more frequent, &c.

Melanic cancer is seldom observed in the skin; it is described by Alibert, as constituted by globules, purple tumours, analogous to blackberries in appearance; when wounded, they exude scarlet and very fluid blood. We will preserve the name of melanic cancer to those black tumours which are the seat of lancing pains, which have a tendency to ulcerate, to reappear after extirpation, and which contain the scirrhous or encephaloid elements. These tumours have been observed in the face, at the wrist, on the little finger, at the breast, the hip, the forehead, and the ankle. Melanic tubercles repose upon a hardened basis; when numerous, they are usually expressive of a cancerous diathesis, and their prognosis is extremely unfavourable.

With regard to the general causes of cancer of the skin, the author admits hereditary transmission, and also concedes a greater influence to

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accidental causes than when the same disease occupies a different seat.

He is positively of opinion that the removal of cancerous tumours should not be abandoned, and establishes the indications and counter-indications of the operations. The first condition is that the disease be local; the second, that it be possible to remove completely the affected part. Even when a cutaneous cancer constitutes a relapse, M. Michon pronounces that it should be removed—a notion which, we acknowledge, seems difficult to conciliate with the first precept, that the tumour should be removed by operation only when it is a local disease. The coexistence of pregnancy or of an important organic affection should prevent surgical interference. As to the enlargement of the neighbouring lymphatic glands, it is always a serious complication, and, unless they can be also removed at the same time with the tumour, no operation should be attempted.

External treatment comprises two orders of remedies: in the first place, those which have for their object the absorption of the tumours and the cicatrization of sores; secondly, the methods of destruction or removal. In the first class we find electricity, topical applications, antiphlogistics, pressure, ligature of arteries only or of arteries and veins, and division of the nerves. In the second class, ligature, cauterization, and excision. None of the remedies of the first category can be considered as curative; they may constitute useful auxiliaries in the treatment, but cannot alone form a method.

As to caustics, M. Michon recommends their adoption in a solid form only, and exclusively to superficial cancers which can be destroyed rapidly. The substances to be preferred are caustic potass, Velpeau's caustic (sulphuric acid and saffron s.q. to form a paste), the Vienna caustic (lime and potass), the chloride of zinc, and arsenical preparations. The knife should be reserved for cutaneous cancers resting upon a broad basis, for those which have penetrated deeply into the neighbouring parts, &c. In the surgical treatment of cutaneous cancers, autoplastic displacements of the skin become very useful adjuncts to the operation; not, as it was at first asserted, in order to prevent a relapse by a modification in the vitality of the parts, but for the treble purposes of shortening the period of cicatrisation, repairing a deformity, and re-establishing the functions of the injured organs: considerations which acquire great weight from the fact of the frequency of cutaneous cancer of the face. Internal treatment M. Michon considers as completely useless, and grants no confidence whatever to the exhibition of iodine, hemlock, arsenic, or mercury.

Having thus examined under its general aspects the history of cutaneous cancer, our author enters upon the description of cancer of the face.

Cancer of the face more usually occupies the lips, the ala of the nose, and eyelids, although it is also met with upon the cheeks and in the parotidian regions. Cutaneous cancer is more common in the face than in other parts of the body, and it chiefly invades the lower lip. The tumours begin by a hard swelling, which is never covered with hair (Boyer), or by a wart which ulcerates. Scirrhus is sometimes the seat of a peculiar retraction, in consequence of which the features are more or less distorted. Inflammatory and erectile tumours, and cysts cannot readily be mistaken for cancer of the face, but sebaceous collections have sometimes caused error. Cutaneous cancer of the eyelids cannot well, on account of its colour, inequality, and size, be confounded with other maladies of the same part. Syphilitic tumours might cause much embarrassment; their seat should be taken into account: thus, when they occupy the upper lip, the disease may be presumed not to be cancer; the age of the subject, the aspect of the organs of generation, and the influence of mercurial treatment will, in most cases, remove all doubt from the mind of the surgeon. Cancerous tumours of the face sometimes assume an appearance of deceitful benignity, remaining stationary for years, and advancing with frightful rapidity when once ulceration has taken place. Cancerous ulcers of the face are seldom primary, but generally are consequent upon the existence of the tumours above described; for the removal of the disease, observing the general rules laid down, the solid caustics and the knife should chiefly be employed.

Cancer of the Penis.—The most frequent cause of this disease is certainly the presence of phymosis—a fact which explains how it happens that this sort of cancer usually invades the foreskin at first. The disease occasionally occupies the skin of the entire penis, without affecting the corpora cavernosa; phagedenic chancre has been confounded with carcinomatous ulcer, but it can be distinguished from it by inoculation. The prognosis of cancer of the penis is, perhaps, less unfavourable than is degenerations of other parts, experience having proved (Lisfranc and Hey) that after removal a relapse is less frequently observed.

Cancer of the Scrotum, or chimney-sweepers' cancer, is specially observed in England; it exists in France also, but is much less common. The disease begins with a tubercle, larger than those of the face, which increases in size, splits, becomes excoriated and ulcerated. When the malady is abandoned to itself, the inguinal glands become affected, and the disease soon occupies the testis, and may even extend along the chord to the internal viscera.

Malignant Tumours of Scars.—Under the name of verrucous tumours of scars, Hawkins described for the first time a disease which invades scars, and which may be said, at the same time to resemble and to differ from cancer. Mr. Hawkins asserts, that after removal the tumour never reappears in the same place—a fact which, as M. Michon justly observes, would constitute a fundamental difference from cancer. But, besides these malignant tumours, scars sometimes become the seat of ordinary cancers, and of another sort which closely resembles one which we will now rapidly describe—keloid.

Keloid is constituted by circumscribed induration, with hypertrophy of the skin: it is more frequent in young subjects and, perhaps, in the female sex; it is chiefly observed on the neck, the shoulders, the nates, and the arms; but its seat of predilection is the skin which covers the sternum. The tumours are generally solitary, but Biett saw as many as eight in the same subject. The disease begins by a hard swelling of the skin, gradually extends, throwing out projections from its margin which give it the appearance of a crab; its colour is of a light red, and becomes pale on pressure. The swelling grows with extreme slowness; general health does not suffer, and the disease does not tend to ulceration, although it resists all treatment, and is very readily reproduced after operation. This disorder is, in M. Michon's opinion, intermediate between malignant productions and those which have not that character.

D. M'Carthy, D.M.P.

Masturbation.—Death produced by the Impaction of a Foreign Body in the Vagina.—On the 7th of February last, at nine P.M., a servant girl, aged 18, was brought to the Hôtel Dieu, Orleans, in a frightful state of marasmus, and having impressed upon the features those marks of idiotism which invariably follow habitual masturbation. She complained of severe pains in the abdomen, had a continual diarrhœa, yet objected to an examination of that region. The profound depression in which she was found rendered it impossible to ascertain the exact nature of the case. All that could be learned was that she had been the subject of disease for fourteen months. The next morning she expired. At the autopsy the exterior parts of generation presented nothing remarkable, except a considerable tumefaction of the clitoris; but on proceeding with the examination there was discovered within the vagina a hard, thin, shining body like metal, which, lying entirely across the diameter of the organ, prevented its penetrating further. The nymphæ being separated, there was discovered the edge of a pewter cup, slightly flattened, the orifice of which was turned forwards and downwards. This orifice, of an irregular, oval shape, was partially concealed by the perineum, against which it pressed forward like a fœtus. It was impossible to extract this foreign body without cutting through the symphisis pubis. The bladder was afterwards opened: it was small and retracted, and contained five calculi lodged in cavities formed by the hypertrophied muscular membrane, two of which measured three centimètres in their longest diameter, and the others one or two centimètres. These calculi, of urate of ammonia and phosphate of lime, presented the appearance and consistence of gravelly concretions, and easily crumbled in the hand. In following the canal of the ureter, it was observed that it had been cut two centimètres from the meatus urinarius by the superior edge of the cup, which pressed it against the posterior face of the pubis, so that the urine escaped into the vagina, the walls of which were also perforated, and flowed round the goblet without entering into the bladder. One thick stratum of calculous concretions surrounded the vessel, which measured a centimètre at its most inferior part. This being taken out, it was possible to judge of its shape and size. It had at its base a deep neck and a border of a centimètre, which was as a foot for it. This border surrounded the neck of the uterus after the manner of a pessary. The cup measured six centimètres thirteen millimètres at the base of the edge of the orifice; this, being vertically flattened, measured seven centimètres on one side and five centimètres eight millimètres on the other. The circumference taken beneath the secretions measured nineteen centimètres. The surrounding parts, with the vaginal mucous membrane, were in a state of gangrene, and infiltrated with oxide of lead. The ureters were enlarged to the size of an adult finger, and the kidneys were wasted, and seemed as if they had furnished their entire substance to the excessive development of the pelvis. There is every reason to suppose that the cup had been lodged in the girl's vagina for the space of fourteen months, as, from the statement of her friends, it was ascertained that during this time she had been suffering violent spasmodic pains, and had kept her bed. The thickness of the calculous secretions also which surrounded the foreign body proves that many months must have elapsed from its first introduction into the vagina. It is remarkable that there was no symptom of saturnine intoxication during this time; and at the autopsy not a trace was discovered of the poisonous effects of oxide. This may be accounted for, perhaps, by the uric acid uniting with the oxide of the metal and forming a salt, which, before it was absorbed, was constantly evacuated in the urine. The girl had been under the care of several physicians, and had been a month in the little hospice of Patay, without the real nature of her malady being discovered. She suffered in silence, and died at length completely emaciated. The parts and the cup are deposited in the museum of the school of medicine of Orleans.—(*L'Union Médicale.*)

Imperforation of the Vagina; Death; Remarks on Spontaneous Ovulation.—The following case is recorded in "L'Union Médicale;" and the editor remarks that facts of this kind most undoubtedly prove the reality of the expulsion of ovules independently of fecundation. A young woman, twenty-six years of age, had enjoyed up to her twentieth year very good health. About this time she was seized with pains, which were principally felt in the anterior and inferior part of the abdomen. These returned periodically at the monthly crisis, and disappeared after four or five days. She continued thus afflicted for five years; and a physician who attended her considered that she laboured under uterine congestion, as the catamenia had never appeared. During this time the patient felt herself gradually decaying. On examination of the organs of generation, there was discovered an occlusion of the vaginal canal, at about half its length

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from the os externum, by a membrane. The abdomen presented above the pubis a tumour about the size of a fœtal head, which was rather tender on pressure. The finger, carried against the membrane which obstructed the vagina, felt the impulse when the abdominal tumour was struck. The pulse was feeble and frequent, and the girl suffered occasionally from hysterical fits. As the evacuation of the retained menstrual fluid was considered the only means of relieving the present symptoms, and of preventing future serious results, the abnormal membrane in the vagina was punctured by a bistoury directed upwards upon the finger as a guard. Immediately there escaped, to the amount of six or seven ounces, thick coagulated blood mixed with mucus. The evacuation was promoted by pressure on the tumour above the pubis, which speedily diminished to two-thirds of its original volume. During the operation the patient complained a little of slight pains, which were increased when pressure was made. After some hours there was increased tenderness; convulsions manifested themselves, with abdominal tumefaction, indicative of peritoneal inflammation. Though two copious bleedings were had recourse to, the patient died in two days. The autopsy made, forty-eight hours afterwards, by M. Locatelli, who attended the patient, showed evident traces of peritonitis, with seropurulent effusion, especially in the left iliac region; and this fluid was mixed with a small quantity of putrefied blood. The uterus was the size of a fist; the Fallopian tubes adhered strongly to the posterior surface of the ovaries, which were enlarged so as to be easily seen—the left being the size of a turkey's egg, the right that of a walnut. On the posterior surface of the right ovary was a rupture, from which escaped black semi-putrefied blood, similar to that found in the left iliac fossa. The membrane which obstructed the vagina was two lines in thickness, and the cavity of the uterus was much larger than natural. By a more careful dissection the Fallopian tubes were found considerably dilated, and adherent to the ovary at the posterior part by loose cellular tissue. They communicated with the uterine cavity by a very thin canal. These two tumours enclosed black liquid blood, resembling that which escaped at the time when the vaginal membrane was divided. The left ovary contained also, in its interior, four or five vesicles, almost the size of a millet-seed, round, with transparent walls, and filled with a straw-coloured fluid. By their anatomical characters they appeared to be so many ovules, detached from the ovary, which had undergone a change at the commencement of development, not unlike that of the fecundated ovule before it passes into the uterus. The surface of the ovaries was rendered very irregular, in consequence of a number of cicatrices of ancient and recent formation. They enclosed many of the vesicles of Graaf, more or less developed, transparent, and many patches, like *corpora lutea*. There were found, also, some other larger vesicles, full of blood, which were certainly from the vesicles of Graaf, from which the ovule had recently escaped; and this presumption was confirmed by the circumstance that these had occupied the periphery of the ovary, and that they corresponded to the more recent cicatrices which were noticed on the exterior surface of these organs.

Revaccination.—Dr. G. Carraro, physician of the village of Arsiero, district of Schio, has performed in that district 342 vaccinations during the year 1846. Of these 180 were males, and 162 females. Of the 180 males the revaccination afforded 19 complete results, 66 incomplete, and 68 unsuccessful (27 individuals who had previously the smallpox were also vaccinated without success). Of the 162 females success was complete in 20, incomplete in 66, and unsuccessful in 96. Thirty afterwards had the smallpox. The results were different according to the ages. Of 26 between five and six years old, in 4 success was complete, in 5 incomplete, while 17 were unsuccessful; of these 2 had the smallpox. Of 90 individuals between ten and fifteen years of age, there were 9 successful cases, 28 incomplete, 33 unsuccessful; 6 had the smallpox. Of 74 between fifteen and twenty years of age, in 9 success was complete, 33 incomplete, 32 unsuccessful; 12 had the smallpox. Of 61 between twenty and twenty-five, there were 11 successful, 23 incomplete, 26 unsuccessful; 16 had the smallpox. Of 35 between twenty-five and thirty years of age, there were 5 completely unsuccessful, 16 incomplete, and 14 unsuccessful, and 8 had the smallpox. Of 33 between thirty and thirty-five years of age, in 1 success was complete, 16 incomplete, and 16 unsuccessful; 5 had the smallpox. Of 20 forty years old and upwards, in 3 success was incomplete, 17 unsuccessful, and 3 had the smallpox. The condition of the pustule varied considerably. Of the 39 successful cases the pustule was normal in 26; in 13 it was more or less incomplete. Of the 132 cases of incomplete success the pustules were normal in 98; more or less incomplete, 34. Of the 114 cases in which there were no results the pustules were normal in 87 cases; very incomplete, or comparatively so, in 27. Of 57 individuals whose constitutions appeared completely refractory to revaccination, 41 had the distinct smallpox, 8 the confluent, and 8 varicella only.

Ulcers of the Tonsils.—Mr. Pearson says, in "The Provincial Journal," there are four morbid conditions of the throat, which more or less resemble the syphilitic. 1st. Ulcers on the tonsils in scrofulous constitutions, or in women of a delicate and lax habit of body. There is nothing which particularly characterizes this species, except that it cannot be traced to any specific cause, and that it will get well by medicines that improve the general health. 2nd. Specks of ulceration upon various parts of the fauces, resembling lupus, destroying and ulcerating more rapidly than lues, and quite as extensively. The tonsils, uvula, soft palate, larynx, or nose, are sometimes partially or wholly destroyed, without the slightest proof of any syphilitic origin. 3rd. Cancerous ulceration of the tonsils to a great extent, with enlargement of the glands of the neck. 4th. Ulceration from the adhibition of mercury at an early period of the course. This species puts on an erysipelatous aspect; and, as it appears to arise when the antidote is manifesting its curative action upon the disease, the ulceration cannot reasonably be imputed to the advance of the disease itself. But when this condition of the throat has existed two or three weeks, the diagnosis is by no means easy. It commits great ravages, and is attended with pain, erythismus, deafness, and a sallow countenance. These symptoms will, however, generally yield to sarsaparilla, bark, mineral acids, and a generous diet. Sometimes there will be considerable enlargement and spongy appearance of the tonsils, with slight ulceration, both tonsils being affected generally at the same time. This case is not venereal, but probably arises from a tendency to become ulcerated upon common exciting causes from former syphilitic disease.

Treatment of the Abscesses which precede Fistulæ in Ano.—Mr. Vincent has had many opportunities of treating those previous abscesses from which fistulæ in ano are formed. In that mass of adipose substance filling up the ischio-coccygeal space, the patient's notice is perhaps drawn to a deep tumour, just differing in substance enough to be clearly distinguishable from the surrounding structure, of a doughy consistence, little sensible, and not at all rising to the level of the surface. This is the first abscess in its earliest state, which, if allowed to go on, will end in the genuine fistula in ano. This lumpy mass is to be transfixed, and a knife plunged down to the very centre of the mass, and then a small quantity of pus comes out; and, upon passing the finger down (and the opening should always be large enough to admit this part), there will be found in the centre of the mass a small cavity of the peculiar pulpy feel that is familiar to surgeons as the interior of an abscess. This prompt measure stops all further progress of the abscess, which otherwise would lead its way either to the rectum or to the surface, and terminate in fistula. The course of these abscesses, when opened, is to close, and finally heal; but the surgeon must not expect that they will heal with the readiness of ordinary active abscesses.

Exencephalous Monster.—Mr. Poland exhibited to the London Pathological Society a specimen of encephalous monster. The fœtus was of the female sex, fully developed, plump, robust, and in apparent full health. The head was the only abnormal part, and presented the following appearance:—A remarkable obliquity of the face, with a protruded right eye, as also a fissure extending from the right inner canthus to the right nostril. From the right side of the vertex of the head, about the frontal region, was observed a large tumour of the size of a walnut, having the integuments with scattered hairs prolonged over it to some extent, but not wholly so, there being apparent externally the subjacent membranes, subsequently found to be the meninges. This tumour was lined by a shining apparently serous membrane. Another small tumour about the size of a pea was situated over the left orbit. On making a dissection of this specimen it was found that there was almost complete atrophy of the superior portion of the cranium, viz., absence of cerebral portion of frontal and both parietal bones; however, the occipital bone was perfect, and formed a complete ring or case at the posterior part of the head. The integuments and membranes supplying the osseous deficiency were carefully removed, as also part of the occipital bone and bony arches of all the vertebræ, so as to expose the spinal cord and the cerebral structure. The spinal cord was perfectly natural, as also the medulla oblongata and nerves arising from them; in front of this, in the median line, was observed the cerebellum, elongated in its antero-posterior axis, so as to extend to some distance in front; then came the corpora quadrigemina (the testes being very small), and having the pineal gland placed upon the centre of the four lobes; after these, proceeding along the median line from behind forwards, were observed the thalami optici, then some trace of cerebral substance. On the left side there existed an atrophied left hemisphere of the size of a horse-bean, and projecting from it anteriorly was a small mass of cerebral matter which passed into the small tumour, described as situated over the left orbit. On the right side scarcely any cerebral structure was apparent, but, on close inspection, some brain tissue could be traced upon the upper surface of the large protrusion, which was soon lost, and a much larger portion, probably the chief part of the atrophied right lobe, extended underneath the tumour, forming its floor. The meninges were satisfactorily observed passing to form the exterior envelope of the tumour, at first extending under the integument, then blending with it, and afterwards forming its sole covering.

Case of Pervious Urachus in an Adult.—Dr. C. Cabell, of the Medical Society of Va, says a remarkable instance of the above malformation and congenital defect lately fell under his observation. The subject was a mulatto girl, of about fourteen or fifteen years of age, well grown, healthy, and of very handsome appearance. The navel presented a flattened, disk-like appearance, about the size of a shilling. The skin about it was loose, and in folds, but not so much so as to attract particular attention to it as a deviation from the ordinary formation. In the centre was a small aperture of the usual appearance, through which, when in the recumbent posture, she could pass her urine, and which, she said, she had done from her childhood and earliest recollection, at pleasure. Her urine was, however, passed, she observed, through the natural channel. A small gum-elastic catheter was passed through this umbilical orifice, which very readily passed, in a canal in the direction of the bladder, for six or seven inches, and when the wire was withdrawn a fluid, evidently urine in odour and

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colour, passed through the instrument. The same instrument was then introduced in the urethra, which was rather smaller than usual, and urine, of the same physical properties as that from the umbilicus, discharged through the catheter, showing that the two canals communicated with the bladder. The girl, who presented a very neat and cleanly appearance, said that she experienced no uneasiness or inconvenience from this unnatural passage to her bladder, and, as said above, she could, at her pleasure, evacuate her urine by either channel.

Treatment of Chronic Lippitudo.—Dr. I. Hays, Surgeon to Wills Hospital, says ophthalmia tarsi is generally a manageable disease, but occasionally cases are met with in which the affection, in consequence of neglect or bad management, has persisted for years—the lids have become puffy, their lining membrane thickened and villous, causing more or less eversion (*ectropium*), their edges raw and sometimes ulcerated; the ciliæ irregular and scanty, or entirely lost; with photophobia, lachrymation, &c. Two such cases came under his charge at Wills Hospital, and, as they had resisted the usual remedies, he was induced to try the alternate application of tincture of iodine, and the solid sulphate of copper, at intervals of three days. The external surface of the lids was painted with the former; and three days afterwards the latter was freely applied over the thickened conjunctiva. Under this treatment both cases, one of them of twelve or fourteen years' continuance, have recovered.

Vaginal Hysterotomy.—Professor G. S. Bedford, of New York, remarks that he has recently been called to an extremely interesting case of midwifery. The lady had been in labour thirty hours. The womb was contracting with great energy, but there could not be detected the slightest vestige of an os tincæ. There was imminent danger of the patient's life. The womb was laid open through the vagina, first making a bi-lateral section of the organ, and afterwards an incision through the anterior and posterior lips. The head was then distinctly felt, but very slight progress ensued. After twenty-four hours longer, the head was still at the superior strait, the patient's strength much exhausted, and everything looking unpromising. The forceps was then used, and the lady delivered of a living child. Five weeks have now elapsed, and both are perfectly well.

Foreign Bodies in the Air-passages.—Dr. J. Mason Warren records, in "The Boston Medical and Surgical Journal," four interesting cases of foreign bodies in the air-passages; and gives the following conclusions deduced from a review of these and similar recorded cases:—"1st. It is unsafe to trust to the chance of spontaneous expulsion any substance which is liable to have an increase of bulk from the heat and moisture of the human body; as, in all probability, the swelling of this substance will render its exit impossible. This is still more true as regards children, from the comparatively small size of the larynx. 2nd. Metallic substances, or those not embraced under the preceding head, when engaged in the larynx, or lodged in the lungs, may be trusted with more impunity. If flat, they naturally present an edge to the tube so as to permit the passage of air on either side. When lodged in the bronchus, such a substance becomes after a time enveloped in mucus, so as to obstruct the free act of respiration; it is then forced upwards, and, in the struggle which ensues, the mucus is disengaged. The body then falls back, and remains quiescent until it again becomes covered with mucus, when the process of dislodgment is repeated. Sometimes, in the violent cough which occurs at the change of place of this body, it is forced out into the mouth and swallowed, or ejected; at others, by coming up suddenly, when the patient's attention is distracted, it takes the larynx, as it were, by surprise, and easily escapes. An interesting case of this latter class occurred in a little girl, a patient of Dr. Hale, in whom tracheotomy was performed by Dr. J. C. Warren, for the removal of the wooden stopper of an inkstand which had been sucked into the trachea. As soon as this passage was opened, all irritation subsided, the foreign substance settled down into the bronchus, and although the wound was kept open a week, and attempts made to dislodge it, they were without avail. Some months afterwards, as the patient was looking out of a window, very intently watching the passing of a military company, the substance came up without effort into the mouth, and was at once expelled. 3rd. If the substance is fixed in the bronchus, and the patient young, the prospect of seizing it by instruments introduced through the wound, and carried down in the direction of the lungs, is extremely small. 4th. Some doubts will arise, however, as to the propriety of leaving in any case a foreign substance for a period of time in the lungs, without an effort to remove it. For although it may finally become detached and be ejected, as it frequently is, after remaining many months or years imbedded in the substance of the lungs, or stowed away in the bronchial tubes, yet fatal organic lesions are not uncommonly the result. The judgment of the surgeon must, therefore, be determined by the circumstances of the particular case. It is remarkable in how great a number of these cases, which are recorded as having occurred in children, the substance introduced was a common garden bean."

Nitrate of Silver in Croup.—Dr. Charles Ware records, in "The Boston Medical and Surgical Journal," a case of membranous croup successfully treated by the application of a solution of nitrate of silver (one drachm of the salt in one ounce of water) to the larynx by means of a piece of sponge attached to a whalebone staff. The disease, in this case, was obviously limited to the trachea, if not to the larynx, and, in this respect, was peculiarly favourable for this treatment.

Chloride of Gold in Granular Lids.—Dr. W. Clay Wallace recommends a solution of six or eight grains to an ounce of water as vastly superior to the nitrate of silver for the cure of chronic granular lids; in recent cases, he says, it is inferior to the first mentioned application.

Rigidity of the Os Uteri treated by Injections of Belladonna.—Dr. A. H. Cenas records, in "The New Orleans Medical and Surgical Journal," four cases of rigidity of the os uteri, in which he administered a watery solution of the extract of belladonna, by injection into the vagina, with advantage. Dr. Cenas thinks that the want of success which some practitioners have met with is owing to their mode of using it. He says, to secure the direct contact of the article, a watery infusion of the extract should be applied by means of an ordinary vagina syringe.

Ether Inhalation in Intermittent Fever.—It is stated, in "The Illinois and Indiana Medical and Surgical Journal," that Mr. J. W. Freer, a pupil in the Chicago Hospital, has employed ether in intermittent fever, with the most delightful results. Two or three inhalations invariably arrested the paroxysm instantaneously during the cold stage, brought on diaphoresis, and in cases where there was no unusual exertion the paroxysms have not returned.

Spontaneous Abortion.—The causes of this accident, says Dr. Radford, in the "Obstetric Record," are numerous: in one case a single cause may exist; in others, two, or even more, may be present—each being sufficient to induce abortion. Some are confined to the uterine contents, and may either exist in the organic system of the embryo (or fœtus), or in its appendages. These are, sanguineous effusions of blood into the structure of the placenta; inflammation, and purulent deposits in it; hypertrophy; atrophy; morbid degenerations of its organization; hepatization; hydatids; moles; different morbid changes in the umbilical cord, and inflammation of the amnion; acute and passive dropsy of the amnion; and various diseases of the embryo, or fœtus. The maternal causes are injuries, directly or indirectly inflicted on the womb, either by blows on the abdomen, falls, wounds; irritating injections; tight lacing; hot baths; abuse of general or local bleeding; drastic purgatives, or other drugs, such as ergot, poisons, &c.; intoxicating liquors; lifting heavy weights; straining; surgical operations; excessive costiveness. Malpositions of the uterus, as retroversion; retro-flexion; prolapsus; and procidentia. Pathological states of the uterus and neighbouring parts; adhesions of the uterus to other parts; tumours in the uterine tissue and cavity, and also those in the pelvis; uterine congestion; inflammation of the os and cervix uteri; varicose state of the cervical or oral vessels; hypertrophy; and different kinds of ulcerations affecting the os and cervix; sedentary habits; laborious occupations; a luxurious mode of living; general and local irritability and debility; nervous constitution; leucophlegmatic habit; diseases, such as fevers, exanthemata, syphilis, &c. A strict examination of these causes will convince the practitioner that a very large proportion are remediable. Some of them only act in one pregnancy; but others, unless removed, continue to exercise their pernicious influence in successive pregnancies, and a fixed abnormal habit is thereby acquired by the uterus, of prematurely expelling its contents. Repeated abortions, in many instances, produce serious constitutional mischief; their evil effects, also, are extended to domestic happiness, and thus, socially considered, ought, if possible, to be averted. When hemorrhage occurs, it ought always, if possible, to be suppressed, because its continuance may become dangerous to the mother, and is always more or less so to the embryo. This symptom does not enable us to ascertain the extent of the separation which has taken place between the ovum and the uterus, or whether the vitality of the embryo is destroyed. The existence of vitality is a sufficient reason why every effort should be made to preserve the embryo, and prevent its expulsion; on the contrary, its death justifies the use of means necessary for its expulsion. Unfortunately, however, the signs of the life or death of the embryo, or fœtus, in the early months are so uncertain, and indeed obscure, in most cases, that rules for the regulation of practice cannot be based upon them. The changes which the cervix undergoes during the abortive process strongly resemble those produced by its normal development, the upper part being first expanded, and the lower portion afterwards gradually and successively yields, so that its stem-like character disappears, and the entire organ becomes oviform. Most of the alterations occurring in the os at the commencement of abortion can alone be produced by sympathy, but the mucous plug is frequently and generally first loosened by the blood pressing downwards, to be discharged per vaginam. These cervical and oral organic changes are readily detected by a manual examination per vaginam; and the length of the cervix can be easily measured, and its shape clearly ascertained, by passing the finger along its surface, and computing the different degrees of the angle of reflection of the vaginal lining membrane, and afterwards comparing its relative length with that of the normal state, as it exists at the same period of pregnancy. The finger must never be introduced within the os uteri during the early periods of abortion; indeed, the length of the cervix offers an insurmountable obstacle to its coming into contact with the ovum, and the attempt cannot be made without great hazard. The body of the uterus is also changed by the abortive process, so that its tangible characters, presented to the finger, are very different to those of the same part, when in a normal gravid state, at the same date. It is found to be enlarged, in consequence of, and in proportion to, the addition it has received from the expansion of the cervix; by this alteration it loses its abrupt angle, and assumes one which is more obtuse, which continues to increase until the organ has acquired what has before been mentioned, an oviform figure; and no line of demarcation or difference can be traced to point out the artificial division of the organ. These changes are not always produced in the same time; in some cases they are rapidly effected, but in others a considerable time elapses before

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they are accomplished. If, after a careful exploration, we ascertain that the figure, length, and thickness of the cervix uteri are normal, it is our duty to adopt every means calculated to preserve the ovum, and thus subdue the symptoms; but, on the contrary, if we discover that it is shortened, either partially or entirely distended, and that the organ has assumed, more or less, the oviform shape, we should assist, by all proper means, the expulsive action, whilst at the same time we pay proper attention to those contingent circumstances which are attended with danger.

Obstetric Abortion.—The obstetric principles, says Dr. Radford, upon which this practice is based are founded upon a calculation made as to the relative value of the two lives—viz., that of the mother, and that of the embryo, or fœtus; and it has been decided in favour of the mother. The destruction of one being by this operation may necessitate, nay has compelled, the repeated recurrence of its performance in successive pregnancies, until the instances have reached an amount varying from four to twelve. Can such a procedure, then, be justified? The obstetrician should pause, and reflect, before he performs such an operation; he ought, indeed, to shrink from perpetrating such wholesale destruction. The woman is, *ipso facto*, a party bringing into existence the innocent being which this operation dooms to destruction—humanity, justice, and reason speak loudly here. It may be said that the wife is subject to the husband, and we will allow that she has engaged to be so by the matrimonial contract; but both likewise promise to fulfil the intention of procreation in the solemn service of matrimony, and the object of conjugal union is thus defeated by the adoption of this operation. It is, and may be truly, said that the female was ignorant of her physical organic defect, and therefore entitled to the full exercise of those means that are calculated to terminate the pregnancy, which, if allowed to proceed to the full period, would require the Cæsarian section. Under such circumstances (which, however, could only occur in a first pregnancy), it is reasonable, nay, it is just, that she should be allowed this privilege; but this concession can rarely be required, because, if ignorant of her state when married, this "ignorance is bliss" until she arrives at her full period; this being obtained, labour commences, and, for the first time, the mal-conformation of the pelvis is ascertained, and the only available resources are craniotomy or the Cæsarian section. The question then is, after the development of these circumstances, if she again becomes pregnant, is induction of abortion a second time justifiable? as, if now adopted, it must, most probably, be repeated over and over again, to carry out the principle; such a course ought not to be adopted, but pregnancy should be allowed to proceed, without interruption, to the full period, and, when labour declares itself, the infant should invariably be extracted by the Cæsarian section. It sometimes occurs that the presumptive evidence of distortion is so strikingly exhibited in the early months of a first pregnancy, as to induce the woman, or her friends, to apply to an obstetrician. If, upon a most careful investigation, the pelvis is ascertained to be too much contracted to allow a viable child to emerge from its cavity, in such a case the woman is entitled to the advantage of the induction of abortion; but, if she becomes a second time pregnant, it is then her duty to endeavour to save the child by submitting to the Cæsarian section.

REVIEWS.

A Practical Treatise of Chemical Analysis, including Tables for Calculation in Analysis. By H. Rose. Translated from the French, and from the fourth German Edition, with Notes and Additions, by A. Normandy. London: William Tegg and Co. Pp. 746. 1848.

Germany has become illustrious on account of the progress which has been there made in the various sciences. Chemistry has been especially enriched by the discoveries of the learned in that part of Europe; and some of the most important works have issued from the German press.

Rose's great work on Analytical Chemistry has for many years enjoyed a European reputation. It appeared first in our language in 1831; and, though a work marked by many defects, it was, notwithstanding, extensively patronized. For some years it has become scarce, and, as the science of which it treats has made rapid strides, a new translation seemed a desideratum.

Dr. Normandy has engaged in this important undertaking, and he has produced a volume which must prove both interesting and valuable to the chemist. Since the time when Griffin's translation appeared, the author himself has made many additions to his work. Having passed through four successive editions, it has now become one half more copious than the manual which appeared as its translation; as the English edition of 1831 contained in one volume both quantitative and qualitative analyses, the former being treated of in 200 pages, while the present volume, treating of the same subject, contains 746.

The text-books of the present translation are the French and fourth German editions: Dr. Normandy deeming it advisable to consult the former, as it contains some valuable notes by Professor E. Peligot. The translator has also made some important additions himself, which he considered necessary to render the text more clear or more complete, either by explaining the rationale of some of the directions given, where they might have proved ambiguous to the student, or, at other times, by adding to the processes indicated by the author those which have been discovered more lately by other chemists.

In the present volume, which treats of qualitative analyses, the usual plan has been departed from of placing at the commencement the chapters which contain directions concerning apparatus—the rules to be followed in analysis and the course of blowpipe operations—these subjects, which occupy thirteen chapters, are placed at the end. Why this has been done we are not informed, nor can we see much advantage to be derived from thus deviating from the usual course.

The work is divided into two parts: the first treating of the behaviour of simple substances, and of their simple combinations with reagents; the second contains the rules to be observed in qualitative analysis. The first section treats of the bases, thirty-eight in number, and the results which follow the application of reagents. These are carefully described, and the translator has appended some excellent notes, which will prove valuable to the student. While the symbol of each base is given, the equivalent number is omitted, it being deemed, perhaps, sufficient to add this when treating of qualitative analysis. We think, however, that it would have been better if the chemical sign had not only been given, but the combining proportion of the base.

The second section, consisting of two chapters, treats of the *oxacids* and *hydracids*. Among the former we have arsenious acid, and the remarks of the author on that as a poisonous agent are very excellent. In reference to the effects of organic substances in modifying the behaviour of the acid and its compounds towards several reagents, he says:—

"When a chemist is legally requested to examine qualitatively organic substances which have been poisoned by arsenious acid, less importance must be attached to the phenomena produced by reagents in such solutions, and which might lead to infer the presence of this acid, because several of these phenomena may be produced by organic substances alone. When a solution of arsenious acid in water contains certain non-volatile organic substances, for example, sugar, this foreign mixture does not hinder, but it retards, the formation of the precipitate produced by an excess of lime-water. The presence of other organic substances, *while lime*, for example, retards also the precipitation of arseniate of lime, which besides has, in such a case, quite a different appearance. When the solution of arsenites contains at the same time several non-volatile but uncoloured organic substances, the precipitate produced by nitrate of silver loses its yellow colour by long standing, and gradually becomes black. Nitrate of silver poured in a coloured solution ordinarily yields an immediate precipitate of a dingy colour. The yellowish-green precipitate, which a solution of *nitrate of copper* determines in the solutions of arsenites of alkalis, is not sensibly altered when the liquor contains non-volatile organic substances. It is also the case with the precipitate produced by *sulphuretted hydrogen* in the solutions of arsenites which have been acidulated with muriatic acid. When, however, the solutions are strongly coloured, the yellow colour of the precipitate produced by sulphuretted hydrogen is difficult to perceive. It is admitted that, of all reagents which have been enumerated, *sulphuretted hydrogen* is most to be depended upon to recognise arsenious acid when the solutions are not too highly coloured. There are cases, however, in which the reagent produces an abundant yellow precipitate in acid solutions, which do not contain a trace of arsenious acid, or even of metallic oxides in general. Such is the case, for example, when very fat meat is boiled for a very long time with a solution of potash, supersaturating the alkaline liquor with muriatic or nitric acid, and filtering. Also, when such meat is boiled for a long time with either of these acids only, diluting the liquor with water, and filtering, by which last operation a clear liquid is often difficultly obtained. In either case sulphuretted hydrogen gas produces in such a filtered liquid an abundant yellow precipitate. The same effect is also produced when this solution being saturated with an alkali, and hydrosulphuret of ammonia added, muriatic acid is further poured into it until it becomes acid. Still less than sulphuretted hydrogen can *sulphate of copper* be considered a certain reagent to detect arsenious acid, because several slightly coloured decoctions of organic substances may thus produce a yellowish green precipitate similar to that which arsenious acid forms with the reagent, especially when a small quantity of potash is added. Thus, for instance, a decoction of unroasted coffee determines in solution of a certain quantity of sulphate of copper, after addition of a little potash, a green precipitate, the hue of which resembles very much that of arsenite of copper; yet the supernatant liquor is also of a green colour, and the precipitate itself dissolves in an excess of solution of potash, to which it imparts, *not a blue*, but a green colour. The green precipitate which a solution of sulphate of copper, with the addition of a little potash, produces in a decoction of onion, resembles arsenite of copper still more. It is so much the more important to bear in mind, that a solution of *nitrate of silver* determines also, in a decoction of onion, with addition of a drop of ammonia, a yellow precipitate soluble in dilute nitric acid and in ammonia, and which resembles arsenite of silver. Yet the hue of this precipitate is more dingy than that of arsenite of silver, and it spontaneously turns black by long standing. A solution of unroasted coffee yields with nitrate of silver a white precipitate only, which the addition of a drop of ammonia immediately turns black. When the object in view is to know whether an organic substance contains arsenious acid, two methods may be resorted to for the purpose of separating this acid so as to be able to obtain metallic arsenic, and thus become utterly convinced of the presence of this substance. One of the methods consists in precipitating arsenious acid by means of *lime-water* in the state of arsenite of lime; the other, by means of sulphuretted hydrogen, in the state of sulphuret of arsenic," &c.

In the third section we have the fifty-four known simple bodies, with their chemical characteristics.

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Dr. Normandy deserves well of the English scientific community for the manner in which he has executed his work. It was a task of no ordinary kind for him to undertake, as he is not a native of this country. It is a book which the chemist may consult with advantage, and we would, therefore, recommend it to be promptly added to his library.

THE MEDICAL TIMES.

SATURDAY, MARCH 25, 1848.

THE SEVEN RESOLUTIONS.

The country knows the fate of Lord Ashley's resolutions. He proposed three out of his seven, and they were rejected by majorities of 50 against 37, of 101 against 19, and of 98 against 36.

The first division was taken on his lordship's rather sweeping amendment for midwifery emergencies. Lord Ashley asked more than the profession, but probably not more than the poor, require. To give every woman in the kingdom, no matter what her position, an unconditional title by law to gratuitous medical assistance for her first and, in a certain medical contingency, for her subsequent parturitions, is a bold step in legislation. How far it would imitate female pauperism—how far it would divert ordinary medical practice to poor-law channels,—and how far, by increasing poor-law medical expenditure on one side, it would tend to get it made more niggardly on another—we will not aspire to decide; but certainly, in its present form, it appears to us a proposition more sweeping than the Poor-law Medical Convention would be likely to think within its functions to press on Government. With reference to this point at least, we shall probably go to Parliament with a less extended demand, and so far must present a stronger claim to success.

The second and third divisions tested in one case the appointment of medical inspectors, in the other, the permanency of medical officership. Defeated, as we have said, on these propositions, his lordship got a pledge that the commission would adopt practically his suggestion of paid consultation in cases involving the life of the mother or child. The rest he abandoned.

Deploring the adverse fate of these resolutions, we yet gather from the debate much to give satisfaction. Mr. Buller, from his position, was compelled to caution and reserve; there was, *in his circumstances*, a Government necessity not to accept, and, *therefore*, to oppose, Lord Ashley's resolutions; and, these facts granted, we see in his able and interesting speeches many auguries that under his Government medical men will obtain all the concessions they require. One aim of ours—almost our greatest—is unquestionably to liberate medical remuneration from the foul domination of local caprices and parsimonies. Sick pauperism could and should be a state affair. Doctorship is no pleasure to the poorest man, but the saddest of sad necessities: it should be given without stint to him, for need will be the measure of his asking it; but to submit it to *local* grant and local expense is to destroy it often, and dwarf it always, and thus to tempt guardians to the double wrong of injustice to medical men on one side, and of mutilation or assassination to the wretched poor on the other. The state, therefore, has here imposed on it a duty of humanity it ought not to evade; and this the less, as it is also a lesson of policy. There are no national advantages to be secured here, as for general pauperism, on the score of local improvements and diminished dependence; no parochial exertions to save the pockets of ratepayers will preclude sickness from a population, whatever they may achieve in regard to ordinary destitution; and then the existence of a Government staff of contented and well-paid medical officers, purveying skill for pauper use and public benefit with promptitude and certainty, and under responsibility, on the first appearance of disease, is a national advantage which, in these days of sanitary legislation, can surely not be exaggerated. Now, what says Mr. Buller on this aspect of medical poor-law reform?

"He assured the noble lord that the subject which he now submitted to the House had occupied his painful and frequent, he might say, his constant attention, since he had had the honour of holding his present office. It appeared to him that, both in principle and detail, it was at the same time one of the most anomalous and important, and one of the most difficult connected with the administration of the poor-law. Indeed he might say, without hesitation, that it was by far the most difficult. (Hear, hear.) He should be exceedingly happy if the result of his consideration of the subject should be to enable him to fix upon any of the many plans which had been proposed to him for putting the administration of this part of the poor-law upon an entirely new and satisfactory footing; for he could not deny that there was much of the present system for the medical relief of the poor which appeared unsatisfactory as well to his own feelings of humanity as to the general feelings of humanity of an enlightened and civilised community. He did not attempt to disguise that he wished he could consistently with his duty propound or support any new plan of medical relief for the poor through the agency of the poor-law, which would appear to him calculated to place that branch of its administration upon a more satisfactory footing; but he must fairly say, that with all the consideration which he had been able to give the subject, it was impossible through the poor-law to give relief *upon any general system* more satisfactory than the present. *His deliberate opinion was, that if they wished a larger and more complete system of medical relief for the poor, it was not possible to administer it through local agency or by a charge upon local funds, but that they must devise some system of central administration, and give from the funds of the country a system of medical relief adequate to their ideas.*"

Lord Ebrington, the Secretary, speaking evidently under a similar conviction, says:—"If the subject of medical relief is to be dealt with, it must be dealt with as a general question."

Again: On the *extent* of medical remuneration, Mr. Buller's speech, while showing that he is open to a good lesson well taught, is very encouraging. "Great," says he, "as has been the increase made in the salaries of medical officers, I think that some further increase ought to be made. In many districts, I think, their salaries are insufficient."

Again:—

"The great object in this case was to secure "the payment of adequate salaries. He looked "to the maintenance of the character of public "servants as one of the main securities for the "efficient discharge of the public service; and "he thought *it was absolutely necessary* that "medical officers should receive a more ade- "quate remuneration for their labour. It "would be his endeavour as much as was in his "power to secure them that in every individual "instance. Undoubtedly the duty was im- "posed on them by the parliamentary grant of "the £70,000 a year for medical relief, and he "trusted that, by the judicious distribution of "that grant, they might be enabled to ensure an "adequate remuneration to medical officers "throughout England."

On inspectorship his answers, though of a less decided character, are pretty well all that might be expected. He repeated more than once, that he guarded himself from the supposition of being considered averse to the appointment of medical inspectors; he had early felt, he said, in his office the necessity of such an authority; he was of opinion that it would be very useful to have them to report on the sanitary condition of workhouses, and that he "was inclined to take measures to obtain that result." "If the noble lord would allow him to endeavour to carry out the objects he had in view, he would do all he could to accomplish them." He added an intimation that he thought one medical inspector desirable forthwith, and that, when sanitary legislation should take effect, it would be then the proper time to decide what further increase of medical inspectors would be desirable.

From a functionary environed by the responsibility of the Chief Commissioner these are very cheering and, we will add, satisfactory manifestations: they give a reasonable hope that, if the Committee be compelled to bring their matured case before Parliament, they will find in him no very implacable adversary.

Let us be understood, however, as saying this not to slacken, but to invigorate professional exertion. Lord Ashley's resolutions being disposed of, we take possession of the field with the conviction patent that every moment lost is an advantage gone. The want of success in the debate of Thursday should be the reverse of a discouragement. There is such a thing as being dead-beaten—an unpromising piece of business, under which the best dispositions may resign themselves to inactivity and submission. But there is a beating which, like that of the Romans against Pyrrhus, leaves behind it both vitality and hope—which, serving as to-day's cheap purchase-money of to-morrow's certain advantages, is fatal only to the enemy and triumphant only to the fallen;—and that is the sort of defeat we sustained in the House of Commons on Thursday week. Lord Ashley's resolutions were overthrown, but our cause was secured. At the worst we lost but an unconsidered skirmish in a winning campaign; and now that the weakness of opposition *there* and the power of truth *here* have been alike tested and displayed, we have but to do our duty to achieve, from no unwilling adversary, the all we aim at.

ON POOR-LAW MEDICAL REFORM IN CONNECTION WITH SANITARY LEGISLATION.

We have been favoured with an article on the above subject from Mr. Liddle, a gentleman distinguished, as our readers know, for the attention he has paid to sanitary progress.

After touching on the capabilities for public services of poor-law medical officers, he thus remarks:—

"The boards of guardians, who fix the salaries, know well that the medical attendants of the workhouses cannot afford to give expensive medicines to the patients in these establishments, although many of them are suffering from chronic diseases. Yet the boards of guardians satisfy their consciences by saying, 'We elect the medical officers, and *expect* them to do their duty.' I have no hesitation in saying that these expectations are not in every instance realised. The

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wine and porter of the workhouse must be freely made use of to make up for the want of efficient medicines and proper attendance. When will the public learn wisdom? How much longer will it continue its short-sighted policy? If the patients are seen by a medical officer, that is all the guardians require. Of the medicines which are prescribed, and of the degree of skill with which the sick are treated, the guardians are, of course, ignorant; and over the amount of extras which are ordered they have no control."

As an illustration of the effects:—

"The public press has recently furnished us with an account of an inquest before Mr. W. Baker, on view of the body of Thomas Harrington, aged 19, who was stated to have died from the neglect of a medical union officer, when the following verdict was delivered:—'That the deceased died a natural death; and the jury are of opinion that a *liberal compensation* should be afforded to a competent number of medical officers whose duties are to attend to the poor.'"

The disadvantages now complained of in the present system are thus touched on:—

"It is useless as regards the prevention of disease, because the services of the medical officers are required only for the purpose of curing or alleviating sickness, but they are not invested with power to remove or neutralize those deleterious agents, over which physical science might have control, and by the application of which it would frequently happen that, by a judicious forethought and circumspection, much misery would be prevented, and a great saving of poor's-rate effected.

"The present system of medical relief to the poor is of no use to the community, as regards the attainment of statistical results. From the long experience I have had in attending to the poor in a very populous union, I find that the services of the medical officer are sought for principally with the view of obtaining relief in food, fuel, and clothing from the workhouse, and that the medical services *per se* are little, if indeed any anything, thought of, for there are so many institutions where medical relief can be obtained gratuitously, that the public set very little value upon them."

Here is part of the remedy:—

"To ensure the proper performance of such duties, the medical officer should devote the WHOLE OF HIS TIME to the service of the public, and ought to receive such a salary as will maintain him as a gentleman *without the aid of private practice*. The services of the present numerous and ill-paid union officers should be concentrated in fewer individuals; for it will be found much more advantageous to the public to have the undivided attention of their officers, than to encourage the multiplication of those now employed in attending to the poor at the paltry salary of a few pounds per annum. The benefit that the public derives is very great. The numerous deaths which have recently occurred amongst them prove that the service is one of considerable danger—in fact, that the risk of life among medical officers of the poor-law unions is greater than that of officers in the army or navy while engaged in active service.

"An education somewhat more extended than that which is required for other medical practitioners would be necessary. The science of the prevention of disease ought to be well understood by them, yet I regret to find that public hygiene is not at present taught in any of the medical schools in London."

Mr. Liddle also recommends the supply of drugs by the Union, the establishment of a Union Dispensary, and suggests a new mode of making the entries in the Union books.

SAGES FEMMES AND MEN-MIDWIVES.

WE have complained so frequently of the injury which quackery inflicts upon the legitimate members of the profession, that we are inclined to fear our readers will imagine little more can be said upon the subject. Facts, however, are daily occurring which show that to let the subject rest would be to betray the interests of the profession and the public. People in general are not sensible of the danger to which they are exposed from the impudence and rapacity of uneducated pretenders to medical knowledge, and too often is it thought that the efforts of medical men to check the evil are prompted entirely by selfish principles. The Government also, which has the power of curbing the licentiousness of quacks, seems disposed to encourage their pretensions; it becomes us, therefore, as public journalists, not to allow an evil of such magnitude to flourish undisturbed, but to bring forward into the broad light of day any new facts which may occur showing its injurious tendency.

We adverted last week to the resolutions of Lord Ashley, in reference to pregnant women who seek parochial medical assistance at the period of their accouchement; and we then remarked that, while the pregnant-women resolution provides an amelioration of some service, it is a partial improvement, paid for by an almost corresponding disadvantage, and accompanied, besides, by a serious professional drawback. Its tendency, as we then observed, is to sanction female midwifery in Government medical practice. Such a principle ought not to be patronized, as it is both unjust and injurious to the members of the medical profession.

It is well known that the labours of primiparals are often more tedious than others, and yet are not more dangerous; and it does not follow that, because difficulties may not then occur, in subsequent confinements all will go on well. If, therefore, these are the only cases in which the accoucheur's presence will be required, then it is but right that the sum for medical services should be augmented to at least double that now received. Nor is it to be expected that, if midwives are to be sanctioned by the Government, and medical practitioners only called in when difficulties arise, they will give their attendance for the humble fee of half a guinea. This sum is barely remunerative by taking cases in the aggregate, some, it is true, only requiring but little attention, while others demand the exercise of the highest skill, and the sacrifice of a large portion of time. But to hand over pregnant females to the tender mercies of old women—whose principal recommendations for exercising the obstetric art are, that they have themselves made considerable additions to the population of the country, and are warmly attached to "drops of comfort"—is fraught with danger to the life of the expectant mother. We have almost daily proofs of the consequences of free trade in midwifery; and it is rather singular that coroners' juries, while they are ready to punish severely an educated medical practitioner, if he refuse to attend a case where there is no prospect of remuneration, treat leniently many who have had charge of women who have died in their confinement from alleged mismanagement.

Yet for our part, if the obstetric art is to remain without any protective enactment, we would rather see "mothers in Israel" attending patients, where the aid of a regularly-educated medical practitioner is not sought, than your quack "men-midwives." Women will not, in many cases, venture to act the physician, if they do the accoucheur; but the "man-midwife" thinks it necessary to assume both characters, if circumstances arise which render it necessary.

We have had transmitted to us a case which recently occurred, to show how important medical skill is in the lying-in-room. A young unmarried female, residing at St. Ebbe, died in her confinement, and the following facts were stated at the coroner's inquest:—A Mr. Allen was engaged to attend her. A female witness stated that she was with her, and that a few minutes after she was got into bed she had a fit like convulsions; she fixed her eyes, and threw her arms about a good deal; foamed at the mouth and groaned; she appeared to recover in five minutes; some cold water was applied to her temples, and the palms of her hands were rubbed. Soon after she recovered from the fit, Allen came into the room; he spoke to the deceased, and she said, "Who are you?" He said, "My good girl, you will soon know who I am." He then sat down, and in a few minutes the deceased had another fit, similar to the first. Allen said, "I am afraid this will be a bad case." He applied cold water, the same as had been done before. After the deceased had recovered from the second fit, she began dozing; a cup of tea was brought, in which Allen put a spoonful of brandy, and attempted to give her some, but she did not take it. Allen said he must go and fetch something that was necessary to be given, as he had only brought a draught with him. He was entreated not to leave the patient, but he said he must go, and would not be long away: he was away as much as an hour. Allen said, if the deceased roused up, she was to be got up in bed, and her stays put on and laced as tight as they could be. This was done before he returned. Some tea was given her with brandy in it, and she drank it, but threw it up again; she vomited twice; the first was like water, and the other similar to bile. She then lay down and went to sleep. Allen returned while she was sleeping. He said if she had not been asleep he should have given her something to have procured sleep. Allen having gone down stairs returned in about half an hour, the deceased having roused up. He said, "This is a very serious case; I never have lost a woman, but I think this girl will die." He did not do anything to her, but ordered warm bottles to her feet; he said bleeding would be necessary, but he could not bleed her while she had fits. Allen did not give the patient anything in the witness's presence. He went down stairs, and when the fits occurred he came up again, but did nothing except to assist in rubbing the palms of her hands. From Allen's appearance the witness stated that she did not think he was a medical man. He requested the father and mother, if they did not feel satisfied, to call in some other medical gentleman. The deceased continued to have fits during the afternoon, and Allen, having again pressed the friends to send for another doctor, Mr. Wyatt came, and ordered leeches to the head, but the patient continued to get worse till she died.

Mr. Wyatt, in his examination, stated that when he visited the patient he found her in a sinking state. He saw Allen in the room, who represented himself as a medical man possessing a diploma from the Aberdeen University. The woman was in a hopeless condition, as the time for more active measures was gone. In Mr. Wyatt's opinion, what might have been done to save the deceased had been omitted.

Mr. Omerod, surgeon, made the *post-mortem* examination. No disease of any kind was dis-

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covered, save a slight thickening of the membranes of the brain of old standing, and a general fulness of the vessels of a recent date. The jury's verdict was "Died from puerperal convulsions."

The "man-midwife" in attendance certainly adopted a very peculiar method of treating puerperal convulsions:—the application of cold water, which the woman had before applied; the administration of tea, with a little brandy in it; getting the patient up in bed, and lacing the stays as tightly as possible; rubbing her hands, and applying bottles of hot water to the feet. He left his patient too "as much as an hour" to fetch something that was necessary to be given, but it appears he forgot his lancet, or, at least, never attempted to use it. Mr. Omerod did good service for him, however, by indirectly answering the question, "Whether bleeding might not have been a relief to the deceased if resorted to early on Saturday?" his reply being that, although bleeding and delivery in such cases have been attended with success, yet that in the very best hands, and with the greatest care, these means have also sometimes failed.

We grant it; but the unanimous voice of the profession is in favour of bleeding, from the success which has attended it. Denman says, "One copious bleeding has sometimes entirely removed the convulsions;" and he mentions a case in which the patient was lying apparently beyond recovery, when, the jugular vein being opened, the good effects were almost instantaneous. Dr. Bromfield informed Denman of a case in which the patient was bled without much benefit, but in her struggles the orifice opened, and a considerable quantity of blood was lost; from this time the convulsions ceased. We might multiply authorities, but we will only quote from a work just published by Drs. M'Clintock and Hardy, entitled "Practical Observations on Midwifery, &c.," in which is embodied the report of the Dublin Lying-in Hospital, extending over a space of three years, during which period six thousand six hundred and thirty-four women were delivered in the institution. Amongst these there were thirteen cases of convulsions—ten before delivery—and of these, *three* died. The authors remark, "Of all the means for combating this formidable complication of labour, venesection is the most efficcaious and generally useful; for not only does it abbreviate the number and severity of the convulsions, but it is calculated to prevent the bad effects of *cerebral congestion* occasioned by the fits; and it further tends to lessen the risk of abdominal inflammation after delivery."

It is to be regretted that the obstetric art is held in such little estimation by our English medical corporations, and non-professional persons occupying high stations in society. Unqualified persons hence abound, and as a natural consequence, when any case of difficulty occurs, it is either treated unscientifically, or an educated practitioner is called in at too late a period to save the patient's life. The Government, instead of sanctioning such a state of things, should forthwith enact some stringent law by which no person should be allowed to attend a case of midwifery without having received an efficient education, tested by an examination.

PETITION AGAINST THE BILL FOR PROMOTING THE PUBLIC HEALTH.

The following petition against the Bill for promoting the Public Health, presented to the House of Commons by Lord Duncan, from Mr. King, has been printed by order of the House, and copies circulated among the members:—

TO THE HONOURABLE THE HOUSE OF COMMONS OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND, IN PARLIAMENT ASSEMBLED;

The humble petition of the undersigned legally qualified practitioner in medicine, surgery, and midwifery, of the city of Bath,

Showeth,—

Your petitioner is of opinion that questions relating to the public health have not hitherto received from the Legislature of this country that degree of attention which is commensurate with their importance; he, therefore, regards with great satisfaction the introduction into your House of a bill, intituled "A Bill for promoting the Public Health." That, while your petitioner highly approves of many of the provisions of this bill, he has observed with deep regret and disappointment the entire omission or allusion to the medical professson; this omission will not only be most grievously and keenly felt by the members of the medical profession generally, but will be attended with very serious and injurious consequences to the community at large.

Your petitioner begs respectfully and earnestly to remind your Honourable House that the care and the due conservation of the public health legitimately belong to the members of the medical profession: they have not only the responsible and difficult duty of treating the various disorders to which the human frame is liable, and frequently risking their lives in the attempt to alleviate malignant and pestilential diseases, but they are expected and often called upon to devote much of their valuable time, talents, and industry, in persevering application in endeavouring to discover the causes, or what has a tendency to produce them.

Your petitioner is of opinion, therefore, that any bill or scheme which has for its objects the promotion of the public health will be exceedingly defective that does not admit or provide for the appointment of legally qualified members of the medical profession to share and assist in its due administration.

That your petitioner, therefore, earnestly and respectfully prays your Honourable House to supply this defect in the pproposed bill, and to enact a law which shall require one or more members of the medical profession to form part of the General Board of Health, and also to appoint a medical superintendent in every district wherever the bill for promoting the public health may come into operation.

And your petitioner will ever pray.

GEORGE KING.

DR. M'CULLOCH AND THE EXPERIENCE LIFE ASSURANCE COMPANY.

[To the Editor of the Medical Times.]

SIR,—Should you consider the accompanying correspondence of value on this, at present, disputed subject, I shall feel happy in placing it at your disposal.

G. M'CULLOCH, A.M., M.D., T.C. Dublin; F.R.C.S. Dublin,
Knightsbridge Barracks.

"The Experience Life Assurance Company's Office,
"London, 58, King William-street,
"March 10, 1848.

"SIR,—A proposal having been made to this company for an assurance on the life of H. G. ——, Esq., of ——, and you having been referred to for information respecting his present and general state of health, I am desired by the directors to request you will favour them with answers to the several questions annexed.

"I beg to add that it is important for the party proposing the assurance that every circumstance connected with his health and habits of life should be communicated to the office.

"As communications of this nature are considered to be strictly confidential, and in no case is any reason assigned for declining a life proposal, you may rest satisfied, that, should the tendency of your answers be such as to induce the directors not to accept the proposed assurance, the purport of your replies will never be suffered to transpire, or become in any way the subject of observation.

"I have to solicit the favour of an early reply; and am, Sir, your very obedient servant,

"T. YUILLE WARDROP, Sec.

"George M'Culloch, Esq., M.D.,
2nd Life Guards, Hyde-park Barracks."

[Here follow the usual questions.]

"Hyde-park Barracks,
"March 10, 1848.

"SIR,—I beg, in reply to your letter of this day (calling on me to fill up and sign a medical report regarding the present state of health of my friend Mr. H. G.), to say that I make a practice of declining to answer such questions for insurance-offices unless such communications be accompanied with a fee."

"G. M'CULLOCH, M.D.

"The Secretary of the Experience Life Office."

"The Experience Life Assurance Company's Office,
"58, King William-street,
"London, March 11, 1848.

"SIR,—I am in receipt of your note of the 10th inst., in which you decline to answer the questions in the report relating to a proposal made by Mr. H. G. to this company, without a fee. I beg to state that it is not the custom with this company to fee private medical men (that is, the medical men referred to by the proposer), consequently I regret that I cannot comply with your wishes. I have to request that you will take the trouble of returning the report.

"I have the honour to be, Sir,
"Your obedient servant,
"T. YUILLE Wardrop, Sec.

"To Dr. M'Culloch, Hyde-park Barracks."

[To the foregoing note no answer was returned by Dr. M'Culloch.]

"The Experience Life Assurance Company's Office,
"58, King William-street,
"London, March 15, 1848.

"SIR,—I beg to call your attention to my note of the 11th inst. It is Mr. G.'s interest to furnish the directors with every information as to his health, in order that they may judge whether his life is eligible for assurance. The fee, if paid, ought to be paid by him.

"I am, Sir, your obedient servant,
"T. YUILLE WARDROP, Secretary.

"Dr. M'Culloch, Hyde-park Barracks."

"Hyde-park Barracks,
"March 16, 1848.

"SIR,—I am in receipt of yours of yesterday. I beg to say I must differ with you as to the party benefited by the medical information obtained from the medical friend or attendant of the person desiring to insure his life. The assurance company are perfectly aware of the advantage gained, otherwise they would depend solely on the opinion of their own physician or surgeon; but such opinion will not sufficiently insure them against risk; they require retrospective information; and thus, consequently, being the party really advantaged, they should pay the fee. It is on this principle I have hitherto, and will always, object to give any assurance company private information respecting the health of any person making a proposal for an assurance on his life.

"As I purpose publishing this correspondence in one of the medical journals, I beg to apprise you of my intention of doing so.

"I am, Sir, your obedient servant,
"G. M'CULLOCH, M.D.

"The Secretary of the Experience Life Office."

MEDICAL REFORM.—THE NEW BILL AND OLD TRICK.

"The hour is come, but not the man."
Guy Mannering.

[To the Editor of the Medical Times.]

SIR,—I claim the credit of having been the first to discover a remarkable property, peculiar, as far as I know, to members of the College of Surgeons among mankind, though kindred in its nature to certain well-known qualities in the "woman, the spaniel, and the walnut-tree." Some of your readers may recollect that I long ago pointed out, and brought strong evidence to prove, the universal fact that the members of the College of Surgeons love to be snubbed. Of course, like other great discoverers, I had to contend with prejudice and opposition, and have been obliged to abide the time

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when my assertion should be tested by further experience before being admitted among recognised verities. Now, the present moment appears to me to be one which will decide, by an *experimentum crucis*, whether I am right or wrong. I call upon Dr. Pritchard, and all who have studied the natural history and varieties of man, to witness the result; and can truly say I shall gladly abandon my favourite theory if it be now proved untrue.

In your last number I find the following paragraph, which you say is a corrected version of a clause in the new scheme of medical reform, and one of some importance :—

"That those persons shall be entitled to be registered as surgeons who shall have been admitted as fellows or members by the Royal College of Surgeons. That the members of the College of Surgeons who dispense medicines, or supply medicines to their patients, shall be required (!) to enrol themselves in the College of General Practitioners, and to be registered as surgeons and general practitioners; and after the passing of this act members of the Royal College of Surgeons shall not be registered as surgeons unless they be also admitted as members of the Royal College of General Practitioners, and registered both as surgeons and general practitioners."

Upon this clause I beg to make a few observations. To the first portion there can be no objection; but the second is really so startling that, if you had not declared the sentence to be a "corrected" form, I should have suspected that there was still some mistake. We are to understand, then, that if any member of the College demeans himself by dispensing medicines, or supplying them to his patients, he is to be required (which, I suppose, means compelled by law) to enrol himself in a "lower-grade" college, while physicians and fellows are allowed to enjoy the solid gains of the pestle and mortar in full fling. The fellow may have his snug shop and green bottles, his pills and his potions, his retail over the counter, and all the comfortable pickings of a trade, without any degradation at all. The physician may have a nice little per-centage arrangement with Mr. Squills round the corner, and share his profits, as is too frequently the case. Both these dignified personages may do these things without rebuke: "Where virtue is, these are most virtuous;" but woe betide the unfortunate member of the college if he dabbles in the apothecary's art, even although qualified by examination to do so, which his *soi-disant* superiors generally are not. In him it is an unclean thing. He must sign and seal his own disgrace, and "begin with shame to take the lower room."

When I ventured, long ago, and under another signature (vide vol. xv., p. 172), to advocate the total separation of pharmacy from medicine and surgery, as derogatory to professional character, I thought I had trod upon a wasps' nest. One of your correspondents pronounced me an ignoramus, who did not see the difference between an open shop and a surgery; it was maintained by another that there was nothing degrading at all in the notion of persons claiming the social position of gentlemen being occupied in retail trade; another, if I rightly understood him, seriously demanded that I should stand up and be shot at by all the general practitioners *seriatim* for making the suggestion, or else offer a public apology.

Let me tell these fire-eating heroes that now is the time to show their courage. If they are fond of fighting, there is plenty of work for them to do; but pistols are nothing to the purpose, nor am I the object most deserving of their wrath. I refer them to the authors of this clause, and if they really are in earnest—if they would show the world that they are not fond of being snubbed—if they maintain that trafficking in drugs is no degradation to professional persons—then let them boldly tell the governing body of their college that they will not submit to be owered in their professional status. If, on the contrary, they are compelled to admit that such trafficking is derogatory, as is assumed by the parties who have drawn up the clause, then let them insist on fair dealing and an equitable application of the law.

There is a little statement in another part of your last number which is not without its significancy at this juncture—I mean the announcement that the Provincial Medical Association has sent in its adherence to the new scheme, and declared its cordial approval of the measure. This was to be expected. The Wolf-and-Sheep Association could find nothing to object to. The Scotch doctors and Lincoln's-inn fellows, who rule the roast in that urbane and jovial society, are well pleased enough to save their own dignity and profits too at the expense of the members of the college. Where is your old correspondent "Vox Veritatis," my respected godfather? Has he nothing to say upon this subject? It is not unworthy of his notice, and deserves the lash of his powerful pen.

One word more in reference to the concluding sentence of the clause before me. By this it is provided that, "after the passing of this act, members of the Royal College of Surgeons shall not register as surgeons unless they be also admitted as members of the College of General Practitioners," &c.

I always thought that the whole movement of the general practitioners took its rise in a determination to resent the repeated insults of the College of Surgeons, and to establish a new institution for the education of their own class, not in connection with, but to the exclusion of, the college. Yet here their representatives have virtually sold their own supporters, and furnished their enemies with the admission that they are unable to execute the task. What, in the name of Esculapius, among the 4,000 members of the National Association, are there none capable of examining young candidates as to their competency for "ordinary exigencies" without the aid of the College of Surgeons? If so, the general practitioners are degraded indeed. But perhaps this was a "concession" allowed in order to procure something in return, though what that something is I am at a loss to conceive.

Sir, I will now tell you the truth of the whole matter. This scheme is nothing but a plan for bringing grist to the mill in Lincoln's-inn-fields. The present members are to be frightened, if possible, by fear of degradation, into taking up the fellowship, by which the college pockets £10 apiece, in addition to the £22 which each member has been already swindled out of; and the new college is to play the part of jackal, and provide a continued supply of candidates in the shape of members who would otherwise very probably content themselves with the certificate of Apothecaries' Hall or the general practitioner's diploma.

The gentlemen who have undertaken to represent the general practitioners in these late conferences are, I dare say, very good sort of men, but they are not deep enough to be trusted to do business with the sharp practitioners in Lincoln's-inn-fields. They must get up very early in the morning, and for a long while too, before they will be qualified to play at the game of "concessions" with those accomplished thimble-riggers.

I am, Sir, your obedient servant,

March 14. ECHO VERITATIS.

ISLINGTON-GREEN LEGISLATION.

[To the Editor of the Medical Times.]

SIR,—For Heaven's sake do something to save a liberal and learned profession from such dishonouring scenes as we witnessed in the House of Commons on Thursday night.

Nobody expects Wakley to be a gentleman; for birth, or breeding, or education, or feeling, one or all, are useful ingredients in the recipe. Strip him of his "brutal coarseness," and you leave him thin as a tailor's yard. It would be too great a cruelty to expect him to be consistent with himself in a speech of half an hour's length: without principles, mental restraint, or reasoning coherence, he turns out whatever garbage comes uppermost at the moment; and the short description of a Wakley speech is one half spent in clumsily undoing what the other half is spent in vulgarly doing. He is at sixes and sevens with himself in a five minutes' speech, as he is with the rest of the world all the days of his life. But surely, Sir, he need not suggest to the *gentlemen* forming the House of Commons that we are of no better materials! "Medical men, he trusted, would *have sense enough* to feel indignant, and that in the end they would *physic* their oppressors"!

This is the *Times* report of Friday, March 17. This is the way to make us respected, and by gentlemen! Then came his vulgar, every-day claptrap about a medical man in Mr. Buller's place; and his vulgar, everyday, raving claptrap about lawyers, as if it were the lawyership and not the *personal* influence of Buller and such men that got them their appointments. Medical men are not the whining and envious petitioners for place this man makes them, and he knows it; but he uses the topic for a purpose, and the House knows it, and laughs at the trick, no doubt fancying that we are just the people to be gulled in that way. But, if you turn from his words to his practice, whom does he appoint to *places* as deputy coroner when he has the chance? A lawyer *in posse!* Is Mills a surgeon, a physician, or apothecary? No, he is a lawyer, if anything! The Government office of assignee of bankruptcy—was that filled by a doctor? No, by Wakley's brother, another non-medical. And this is the man that mountebanks in the House about non-medical patronage!

Just to give you a specimen of his consistency:—

"The disappointment out of doors would be very great when it was found that *no change whatever* was to be made under the new system."

"According to that right hon. gentleman, some two or three trifling matters might be changed on some future day"!

Yet Mr. Buller had announced that he was resolved on raising medical remuneration, &c.! I do not enter on his attacks on the chief commissioner, who certainly spoke as a scholar and a gentleman, such as, "The right honourable gentleman believed nothing of the kind himself: he used it as an argument," &c.; "he was bewildered;" "he wanted a nurse to help him," &c. &c.

These Wakleyisms are well enough, as Sir James Graham once said, in "a certain vehicle, to which they should be reserved;" but certainly it is not *comfortable* for men who know better, and feel better, who are not underbred, and have some sense of public decency, to have such a fellow pretending to speak for them, and of them! A clever writer in "Fraser," wanting to disparage us and raise the physicians, said, that the low state of our morals and intellectual attainments might be conjectured by our having, and supporting, such a journal as the *Lancet*. And members in the House of Commons, when they hear this Islington-green rubbish on medicine, must argue much in the same way of us. Can't you do something to prevent this? C.

[We should be very sorry.—ED.]

DR. ROBERT LEE AND HIS DISCOVERIES.

[To the Editor of the Medical Times.]

SIR,—Your correspondent "Pastor" must either be a very "weak mortal," or he must have forgot the maxim (which in the case of one of his pretensions and profession is rather strange) that "Charity thinketh no evil." I also happen to know a little of Dr. R. Lee, and have read some of the recent attacks upon him. But I confess these have failed to produce in my mind the same conclusion as that to which "Pastor" has come. First,—Is it credible that any one with the least vestige of sanity could be guilty of what it is alleged Dr. Lee has done? Could he ever imagine that the Royal Society or the profession at large would receive at once, without investigation or scrutiny, what he lays claim to have discovered? Has he had no lessons already as to the way in which discoveries in the nervous system are sifted? Could ever "vainglorious ambition" so blind a man as to impel him to do what he must know would infallibly bring exposure, disgrace, and expulsion from all honourable society? Could, in short, Dr. Lee, who has certainly a reputation to lose, ever stake it upon a *lie* which he must know he could not by any means cover for a single week? The idea is preposterous. But, second, Dr. Lee has denied all the charges laid against him,—publicly, explicitly, deliberately denied them. He has explained how the apparent discrepancy between the drawings presented to the society and the preparations exhibited arose—viz., by his having proceeded with his dissections after he was given to understand that no official examination of these preparations would be made, and that the Physiological Committee had in fact "cushioned" his paper; and he has announced his intention of re-presenting his paper to the Royal Society, with the drawings amended and completed, after he has finished his dissections. And will not all this suffice? Should not this satisfy every reasonable man, and at least have induced "Pastor" to suspend his uncharitable judgment upon an old class-fellow, more especially as it related to a matter on which he could know nothing, even though he did attend a few medical classes in his youth? But at any rate he might have withheld the base and malignant insinuations respecting Dr. Lee's early history and motives which run through his letter, and have remembered instead the old saying, "It is a small matter to be judged of man's judgment." That would, at all events, have been more in keeping with the superior sanctity to which he lays claim.

As one far removed from London, and having no communication with Dr. Lee, or any of his friends there, but deriving my information solely from the public prints, and remembering how Dr. Lee had been treated by the council of the Royal Society; how

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honours to which all impartial men judge he was fully entitled have been grossly and gleringly withheld and perverted; how he has dragged the secret doings of Somerset-house to light, and held them up to the contempt and execration of every honourable mind,—I say, looking at these things, and at the parties, who have been proved the dirtiest at that dirty work, I cannot resist the suspision that this noise about Dr. Lee, and the allegations against his honour and integrity which have been so perseveringly made, owe their origin to official revenge and petty personal spite. Let such parties, however, beware, for they will perhaps find, ere long, that the mischief they intend for another may fall on their own heads. They talk about expulsion from societies! They attempt to put down one whose labours and devotion to anatomical science will be appreciated long after all their deeds have perished! They accuse any man of dishonour and falsehood! Pshaw! I am, &c., C.

Edinburgh, March 6.

GOSSIP OF THE WEEK.

War-office, March 18. — 2nd West India Regiment: Patrick Joseph Clarke, gent., to be Assist.-Surg., vice Tuson, appointed to the 53rd Foot.—3rd West India Regiment: Anthony Dickson Home, gent., to be Assist.-Surg., vice Concannon, deceased.—14th Light Dragoons: Assist.-Surg. Charles Hamilton Fasson, from the 53rd Foot, to be Assist.-Surg., vice Stone, promoted on the Staff.—44th Foot: Jeakin Humfray Llewelyn, gent., to be Assist.-Surg.—53rd Foot: Assist.-Surg. Edward Baily Tuson, from the 2nd West India Regiment, to be Assist.-Surg., vice Fasson, appointed to the 14th Light Dragoons.—73rd Foot: Assist. Staff-Surg. T. Washington Benjamin Buckler, to be Assist.-Surg., vice Hodgson, who resigns.—Hospital Staff: Staff-Surg. of Second Class William Linton, M.D., to be Staff-Surg. of the First Class, vice Grant, deceased; Assist.-Surg. Edward William Stone, from the 14th Light Dragoons, to be Staff-Surg., of Second Class, vice Linton, promoted; James Lewis Holloway, gent., to be Assist.-Surg., vice Buckler, appointed to the 73rd Foot.

Charing-cross Hospital.—The annual dinner of this institution took place a short time since at the London Tavern, and was unusually well attended. In the number and respectability of its supporters, the hospital appears rapidly to be gaining ground in public estimation; and the efforts which it has made during the past year fully entitle it to an increase of patronage. During the course of that year 12,092 sick persons have been admitted on the books of the hospital for relief, and at an expense of £2500. Of these, 1155 were in-patients, and 10,937 out-patients. Since the foundation of the hospital, in 1818, no less than 133,758 persons have partaken of its advantages, and it may be interesting to learn that, exclusive of 1533 patients received by recommendatory letters from governors and subscribers during the past year, as many as 10,809 were freely admitted without any recommendation whatever. The committee of management urge upon the benevolent public the necessity for enlarging the funds of the institution, in order to increase its usefulness, and their claims in this respect appear to be too well founded, as it appears from the report that no less than 1500 cases of accident and sudden injuries have been admitted into the hospital during the past year.

The St. Pancras Royal Dispensary.—An inquest was held by Mr. Mills, at the Lord Nelson, King's-road, St. Pancras, upon Thomas Cook, aged four months. Elizabeth Crow stated that, finding deceased dangerously ill, she went to the St. Pancras Royal Dispensary, and requested Mr. Dymond, the house-surgeon, to visit him, as he was apparently dying. He refused doing so, and desired her to bring the child to the dispensary. She told him that she could not do so as he would die on the way. Mr. Dymond insisted upon the child being brought, adding that if deceased was not soon brought he would not see him. In half an hour after her return home deceased died.—Hannah Lunn deposed that deceased's father died three days after deceased was born, and that his mother, who was subsequently married again, would flog and lock up deceased in a room by himself, while she sent her other two children to pick up in the streets what they could, although she had ample means to provide for them.—Mr. Greenhill, a medical gentleman, attended from the St. Pancras Royal Dispensary, to explain that attendance at the dispensary was only at certain hours, when all who presented themselves were prescribed for.—The jury returned a verdict of "Natural death," accompanied by a censure upon the conduct of Mr. Dymond for not having attended deceased when required. The inquiry occupied several hours.

Professional Titles.—A learned physician, and fellow of the Royal Society, seeing over the door of a paltry public-house, "The Crown and Thistle, by Malcolm MacTavish, M.D., F.R.S.," went in and severely took the landlord to task for this presumptuous insult on science. Boniface, with a resepct but firmness which showed that he had been a soldier, assured the doctor that he meant no insult to science. "What right, then," asked he, "have you to put these letters after your name?" "I have as good a right to these," answered the landlord, "as you, having been Drum-Major of the Royal Scotch Fusiliers."

Monument to Harvey.—The Mayor of Folkestone convened a meeting at the Town-hall last week, for the purpose of ascertaining whether the proposed erection of a monument to their distinguished townsman, Dr. William Harvey, the discoverer of the circulation of the blood, would meet with the approbation and support of the townfolks. The hall was well and respectably filled. The meeting was addressed by Dr. Bateman, who, in expatiating on the great worth which Harvey's discovery had been, is, and will be, said that not all the deeds done by heroes could compare for usefulness to man, with that discovery of Harvey. Mr. Minter read a letter from Earl Radnor, wherein his lordship gives the committee liberty to choose any piece of ground on his estate whereon to erect the memento. Mr. Smyke, Earl Radnor's architect, has offered his professional services gratuitously. It was proposed that the town be divided into districts, and that certain of the committee be appointed to collect the donations of the inhabitants; and, when that shall have been done, to make appeals to other towns, until the sum required be obtained. Several persons, before leaving the hall, became subscribers.

Professional Squabbles.—An action was recently tried at Chelmsford for slander, in which the plaintiff was a surgeon of the name of Thompson, and the defendant Smith, of the same profession, and both residing at Manningtree. The complainant was originally an assistant-surgeon in the army, but resigned his commission in 1810; since then he has been practising in the town of Manningtree. In the month of September last, the plaintiff and defendant met, and personal collision took place, in which the former was knocked down, and on rising certain words were uttered by the latter which formed the ground of the present action. Mr. Smith said, "You old scoundrel, what do you know? what have you done of late? Look at the case in Front-street: you murdered Mrs. Owen. What did you do to Miss White, of Mistley? Did you not bore at her, and sweat over her like a bull, you old rascal? Did you not take sixteen ounces of blood from a man in debility? What did Mr. Rogers get rid of you for, but because you are incompetent? you are incompetent, I say. You may try the law." Various witnesses were called, among them Mr. Alderman Partidge of Colchester, and Dr. Allan Macleum. The jury returned a verdict for the plaintiff — Damages £50.

Burmese Anatomy.—The heart, in shape, is like the bud of a water-lily; it lies with the point downwards, having three folds at the lower end, and is situated in the middle of the breast; it contains about a handful of blood. The liver of a wise man is thin and divided into three lobes; the unwise have large deformed livers: the liver is on the right side under the heart. The first spleen is in contact with the bowels; it is eight fingers in length, and in shape is like a cow's tongue: the second spleen is on the right side of the liver. There are three kinds of lungs, red, black, and spotted; they are situated in the breast above the liver, and are in shape like the fruit of the "thassan," (mirobalano). The intestines of a man are thirty-two cubits long, those of a female twenty-eight cubits; they are coiled up in twenty-one folds below the opening of the breast. There are two descriptions of gall: one is contained in a bag, in contact with the liver; the other is diffused through the whole body. The human frame is also filled with pus. Perspiration exists in the orifices from which the hair grows. The spittle flows from the pouches on each side of the jaws.

Obituary.—On the 31st of August, at Oatlands, Van Diemen's Land, F. J. Park, Esq., colonial assistant-surgeon, and upwards of fourteen years medical officer of that district.—On the 1st inst., at his residence, Mr. William Thomas Hughes, of the Army Medical Department, aged 47.—Feb. 18, of fever, Robert Twiss, M.D., medical attendant of Bird-hill Dispensary, county of Tipperary.—Lately, Thomas Sumner, Esq., surgeon, Newton-le-Willows, Lancashire.—On the 6th inst., at Shanklin, Isle of Wight, Alexander Home Renton, M.D., late of Madeira, aged 54.—On the 5th inst., at Frankfort-on-the-Maine, Dr. Ynyr Burges, M.D., aged 48. On the 13th inst., at Bangor Infirmary, of malignant typhus, taken in the discharge of his duties, W. Leyson Thomas, Esq., house-surgeon of that establishment.—On the 26th of December last, at Saugur, Central India, aged 30, Assistant-Surgeon Samuel Brooke, of the Hon. East India Company's service, fourth son of the late Samuel Brooke, Esq., formerly of Finchley, Middlesex.—On the 16th inst., at his residence, in Great Stanhope-street, Sir Richard Hunter, Knight, M.D., aged 66.—On the 11th inst., at Tunbridge-wells, in his 81st year, Dr. Nelson, M.D., late of Wimpole-st.—Feb. 14, at South Molton, Devon, aged 52, John Nott Harding, Esq., surgeon.—Feb. 26, at Tinnehely, county of Wicklow, of fever, Henry Morton, M.D.—Feb. 26, at Sheerness, aged 47, George Walker, Esq., surgeon.—March 2, at Brighton, Robert Murray, Esq., surgeon, Honourable East India Company's service.—March 5, at Frankfort-on-the-Maine, aged 48, Ynyr Burges, M.D.—March 12, at Manchester, aged 25, of fever, Joseph Done, Esq., one of the visiting medical officers to the Manchester Royal Infirmary.—March 13, at Bangor Infirmary, of typhus fever, W. Leyson Thomas, Esq., house-surgeon to that institution.—Lately, James Lewis Kirkness, Esq., surgeon, Truro.

The Royal Society.—The Marquis of Northampton, as President of the Royal Society, gave his second *conversazione* to the members of that learned body and their friends, on Saturday evening, at his lordship's mansion on the Terrace, Piccadilly. Among the objects of interest exhibited in the noble president's saloons were some very remarkable illuminated works, chiefly books of church music, collected among the islands of the Archipelago, by Major Macdonald. Some of these were of as early a date as the year 1200, their beauty of finish and elaborateness of detail being perfectly wonderful. Of models of new inventions, &c., there were fewer exhibited than usual; but of works of art, including some beautiful specimens of photography by M. Claudet, were very numerous.

Royal College of Surgeons.—Gentlemen admitted members on Friday, March 17:—Messrs. F. Wilkinson, G. B. Maafen, J. Shorts, H. Haden, S. M. Shircore, J. S. Helmcken, R. Laycock, H. G. Martelli, F. A. Willington, M. Coleman, J. Bailey, and W. T. Alexander.

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MORTALITY TABLE.

For the Week ending Saturday, March 16, 1848.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1118	1107
SPECIFIED CAUSES...	1110	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	289	184
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	45	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	130	138
Diseases of the Lungs, and of the other Organs of Respiration	176	225
Diseases of the Heart and Blood-vessels.....	28	39
Diseases of the Stomach, Liver, and other organs of Digestion	75	62
Diseases of the Kidneys, &c.	16	9
Childbirth, Diseases of the Uterus, &c	4	13
Rheumatism, Diseases of the Bones, Joints, &c. ...	6	8
Diseases of the Skin, Cellular Tissue, &c.	2	1
Old Age.....	43	79
Violence, Privation, Cold, and Intemperance.....	33	31

NOTICE.

SUBSCRIBERS IN ARREAR are respectfully requested, in conformity with the terms of their subscriptions, at once to forward their remittances to the OFFICE.

☞ The subscription for the stamped edition of the *Medical Times* is 15*s.* for the half-year, and £1. 5*s.* for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfrae.

THE CHART.

In providing for the punctual receipt of the *Chart* by every annual subscriber on our roll, we have arranged that the delivery *through the Post-office*, where not made to-day, will be completed on the succeeding Saturday. In the interim it is hoped, however, that other gentlemen will avail themselves of the opportunity of providing for its transmission by a channel more eligible for such an engraving than the post.

*** To meet the convenience of gentlemen wishing to possess the Chart, all annual subscribers entered on our roll during the month of March will be entitled to a copy.

The Chart is also published separately, price half-a-guinea.

Back copies of the *Medical Times* from January 1, or from the beginning of the volume in October, may be had by order through any bookseller, or by remitting an order to our Publisher.

We have to repeat to two or three gentlemen, *not entered as annual subscribers on our roll*, an answer before given:—1. Our arrangements already made preclude our giving charts to the extent involved by our correspondents' request. 2. The investigation of claims made through booksellers, or by private letters, would involve a labour, expense, and annoyance we do not feel called upon to incur, and this the more, inasmuch as all our exertions in so invidious a task would certainly end most unsatisfactorily. 3. Though feeling a proper amount of obligation for all support, whether for short or long periods, through the trade or not—an obligation we endeavour to repay our friends by making our journal worthy its cost—we may yet be well excused for wishing to make some special, though certainly needless, acknowledgment to those subscribers whose names have been under our own eye enrolled in our own books through successive months and years as steady and cordial supporters. A compliment to them must be much misconceived if treated as an affront to our other friends, with whose wishes, besides, we should find it practically quite impossible to comply.

"Iatros."—Little is known of the precise form of the charter proposed for the College of Physicians, but there can be little doubt that it will be modified to suit some objections made to various smaller points in it. The clauses in reference to extra-licentiates and M.D.'s in England not of its body are the following:—"Clause 4. That each of the present extra-licentiates of the said corporation shall be admitted an associate (or member) of the said corporation, on the production to the said censors of the said corporation of testimonials of character and professional qualification, which shall be satisfactory to the said censors, and on passing such examination before the said censors as shall be required by, and shall be satisfactory to, the said censors, and on his paying to the said corporation a fee of £25, exclusive of the stamp duty.—Clause 5. That every person now practising as a physician in England or Wales, and who shall have taken the degree of Doctor in Medicine at any university in the United Kingdom of Great Britain and Ireland, after regular examination (previously to the 1st of January, 1842), and who shall have attained the age of thirty years, and who shall not be engaged in the practice of pharmacy, shall at any time within twelve calendar months from the acceptance of these our letters patent by the said corporation, in the manner mentioned in the act of Parliament, hereinbefore stated to have been passed in the present year of our reign, be admitted an associate (or member) of the said corporation, without any examination, on the production to the said censors of the said corporation of his diploma, and of such testimonials of character and professional qualifications as shall be satisfactory to such censors, and on his proving himself to be of the said age, and on his assuring such censors that he is not engaged in pharmacy, and on his paying to the said corporation a fee of £25, exclusive of the stamp duty."

"Anatomicus."—Cases have been mentioned by French writers to show that pyromania is entailed in certain families.

"An Apothecary."—There can be no doubt that any bill interfering with the rights possessed by an apothecary at common law, as a surgeon would be opposed. There will be an exception in the proposed scheme when it shall be submitted to Parliament.

"Inquisitor."—We noticed the coincidence. The Hope Insurance case was reported from "The Annual Register" for 1831.

"Scriptor."—The reports have been received.

"A. B. C."—The oldest descriptions of the disease are found in the works of Aretæus and Galen, though, according to Pliny, it was of frequent occurrence in Italy as early as the time of Pompey. The symptom referred to is not well authenticated.

"Petens."—The question we are unable to answer, and must refer our correspondent to the secretary of the college.

"Richard L."—The theory on the vital principle we cannot insert, as it would prove both tiresome and unprofitable to our readers. The scepticism of celebrated anatomists is a subject which we are not disposed to discuss.

"Medicus Edinensis."—The occasional failure of vaccination in preventing the occurrence of smallpox is no argument for its disuse. It has proved a great boon to society, and Jenner is worthy of all honour for his discovery.

"A College Member."—The council appears to have committed certain derelictions of duty; if they are explicitly stated, they shall be published. We shall feel obliged by the name and address of our correspondent.

"Studens."—The names of the gentlemen who constituted the Court of Examiners at the time the regulation was made we are unable to give. It is a matter of very little consequence.

"Gulielmus."—The charter confers no such privileges.

"Scrutator."—The disease may arise in its severest form without any obvious cause at the period of the cessation of the catamenia. We know of no certain remedies.

"A Qualified Practitioner" exhibits a very laudable anxiety for the settlement of Medical Reform upon a sound and permanent basis. The questions which he asks, however, can only be answered by the gentlemen who are engaged in arranging the plan.

"A Medical Witness."—Wounds of the chest which penetrate the heart and lungs are fatal oftentimes not so much on account of the quantity of blood effused as from the pressure which it produces on these organs. The effusion of a few ounces into the pericardium is sufficient to arrest the heart's action.

"A Physician."—The salt is now much used in electro-gilding. It is sometimes met with in a crystalline state; at others in a white, chalky-looking powder. It is not much employed in English medicine, but is frequently used by the continental medical practitioners. Five-sixths of a grain is considered a large dose.

"An Old Fox" sends us an account of the London College of Medicine, which he informs us was "one of the Coroner M.P.'s bantlings." Our correspondent says that, among the resolutions promulgated in reference to the said College, there was one as follows:—"There shall be a fund established, called the College Fund, into which all moneys received shall be paid, and which shall be appropriated to the defraying of the necessary expenses, rewarding services, and affording relief to any of the members of the college, or their families, who may require assistance." And he asks, "Was there any money collected? if so: what became of it?" We are unable to say.

"Chirurgus."—We cannot interfere in the private misunderstandings of medical practitioners.

"Emigrant."—The sum stated will be sufficient for the expenses of the voyage, with a little surplus afterwards. We can give no opinion upon the prospects of an English surgeon obtaining professional employment in the United States. An examination must be undergone before the constituted medical authorities.

"An Old Friend."—We fear there is not much chance. There are numbers who require the same thing. An advertisement in the *Medical Times* would be the most likely means of obtaining the desired situation.

"Dr. Harwood."—1. It is not the same. 2. Yes.

"A Radical Surgeon."—If the present arrangements be carried out, there will be no difficulties in the case referred to. The charter is not yet published.

"Mr. J. Bowen."—The instrument may be ingeniously constructed, but it is perfectly useless in practice.

"S. B., Macclesfield," is, we should think, not in earnest in asking the question he does, in reference to Tallia-cotius and his operation for forming a new nose. The satirical poet, Butler, is no authority when he says—

> "So learned Talliacotius, from
> The brawny part of porter's bum,
> Cut supplemental noses, which
> Would last as long as parent breech."

The integument for forming the new nose was generally taken by him from the arm, which was raised and bound to the face till adhesion of the skin took place.

"Mr. Graham's" "Case of Disease of the Brain" is under consideration.

"Scotus."—The paper on the Scotch Medical Schools is not suited to our columns.

"An Assistant Surgeon, E. I. C. S."—The papers have been received; and a private communication forwarded according to request.

"Chiron."—The plan may be very good in the estimation of those who originally proposed it; but the profession would not accept it.

"M."—The sum can be recovered in the county court.

"Mr. Edwin Sams."—The rules for forming a diagnosis are not very satisfactory.

"Nemo, Borough."—The college cannot exercise any controlling power.

"Obstetrician."—We know of no signs that can be relied upon.

"B. B."—The best is a needle, or small trocar.

"Lector."—South's "Chelius."

"A Subscriber."—The indentures cannot be cancelled without the master's consent.

"Dr. Cheney."—We have not heard of such a provision in the proposed arrangement.

"Magister's" letter is an advertisement.

"Apothecarius."—It is said a portion of old ointment facilitates the operation, and is certainly much to be preferred to turpentine, which is apt to produce pustules on the skin.

"A Poor-law Surgeon's" "Remarks on Lord Ashley's Resolutions" have been received.

"Senex."—The Company will not prosecute.

"A London Medical Pupil."—The fee for the diploma of the Royal College of Surgeons, Ireland is, £31. 10*s.*

"An Edinburgh Physician."—A specimen may be seen in the Hunterian collection at the College of Surgeons.

"M. R. C. S., L. A. C."—A candidate must be unmarried, not beyond twenty-six years of age, nor under twenty, one. The communication must be forwarded unsealed under cover to the Right Honourable the Secretary at War, with the words "Army Medical Department" at the corner.

"A. C. S."—The L. A. C. is indispensable.

"Dr. Bushnan on the Progress of German Medical Science" received.

"A Fresh Man."—The registrar of the college is the person to whom application should be made.

"An Irish Surgeon, Belfast."—The work is published by Mr. Renshaw.

"Mr. G. Williams, Tenby."—An opinion cannot be formed without a specimen of the article.

"Viator on the Constitution of American Medical Colleges" is under consideration.

"M. A. F."—The mistake might easily have been made, as the shortening of the limb is influenced by the condition of the membrane which invests the head of the bone. When it is uninjured the retraction is very inconsiderable.

"Spectator."—The new Medical Bill has not been introduced to the House of Commons.

"Chirurgus."—The dislocation is not so rare as our correspondent supposes; if, however the particulars are forwarded to us they shall be published.

"Mr. Edward Johnson."—The Royal College of Chemistry.

"A Constant Reader."—The diagnosis of the one is simple when compared with the other, in which the inferior penetrates the superior fragment.

"An Army Surgeon."—There is no limit in point of age.

Letters and communications have also been received from Anatomicus; An Apothecary; Inquisitor; Iatros; Scriptor; A. B. C.; Petens; Richard L.; Medicus Edinensis; A College Member; Studens; Gulielmus; Scrutator; A Qualified Practitioner; A Medical Witness; A Physician; An Old Fox; Chirurgus; Emigrant; An Old Friend; Dr. Harwood; A Radical Surgeon; Mr. J. Bowen; S. B., Macclesfield; Mr. Graham; Scotus; An Assistant Surgeon; Chiron; M.; Mr. Edwin Sams; Nemo, Borough; Obstetrician; B. B.; Lector; A Subscriber; Dr. Cheney; Magister; Apothecarius; A Poor-law Surgeon; Senex; A London Medical Pupil; An Edinburgh Physician; M. R. C. S., L. A. C.; Dr. Bushnan; Mr. Ellis, Walsham-le-Willows; Mr. Smith, Pudsey; Dr. Peppard, Pallas Kenry; Mr. Towers, Hertford; Dr. Fyfe, Aberdeen; Mr. Bellyse, Nantwich; Mr. Miles, Gillingham; Mr. Elston, Rainsford; Mr. Newton, Hallingwood; Mr. Dowse, Parkhurst; Dr. Paxton, Rugby; Mr. J. French; Sigma; An Oculist; A Member; Anatomist; A Well-wisher; F. G., Manchester; An Old Member and Subscriber; A Fresh Man; An Irish Surgeon, Belfast; Mr. G. Williams, Tenby; Viator on the Constitution of American Medical Colleges; M. A. F.; Spectator; Chirurgus; Mr. E. Johnson; A Constant Reader; An Army Surgeon; Q. in the Corner; Crites; A Poor Student; A Medical Witness; Scalpel; Ignoramus; A Five Years' Subscriber; Mr. Greenwood; &c.

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No. 444. **SUMMARY.** April 1.

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ORIGINAL LECTURES.

LECTURES ON SOME OF THE MORE IMPORTANT POINTS IN SURGERY.

By G. J. GUTHRIE, Esq., F.R.S.,

Read by Mr. HANCOCK, Surgeon to the Charing-cross Hospital, and Lecturer on Anatomy and Physiology at the Royal Westminster Ophthalmic Hospital.

Lecture VIII.

ON WOUNDS AND INJURIES OF THE CHEST.

Cases of wounds of the heart, by Dupuytren, Percy, Chianéa, Steifansand, Sanson, Mallé, Ferus, Velpeau, Frizi, Holmes, Schmucker, Henri, Breschet, and Gualtam; auscultation of the precordial region; Dr. Hope and Dr. Latham's description of the precordial region; sounds of the heart; impulse of the heart; use of the terms endocardial and exocardial; unhealthy sounds of the heart and pericardium; symptoms indicative of wounds of the heart; M. Jobert on the signs of these wounds, and their causes; propriety of closing the external wound in the first instance; Dupuytren's treatment of the Duke de Berri; Larrey's cases of wounds of the heart; comments on these cases; Larrey and Desault's cases of supposed traumatic dropsy of the pericardium, and the operation; Larrey's operation for hydrops pericardii; Skielderup's operation by trepanning the sternum; case of wound of the heart and diaphragm; influence of the structure of the heart on its wounds; insensibility of the heart; wounds of the heart by pins and needles; cases by Sir G. Ballingall, Sir Stephen Hammick, and Dr. O'Connor; death from blows on the heart; medical treatment; lacerations and ruptures of the heart.

Baron Dupuytren has related three cases of fatal wounds of the heart, in his "Leçons Orales." In the first, the individual, Pierre Geray, lived eight days after a transverse wound, three lines and a half in extent, and one line in width, the edges being separated externally, but applied to each other internally. The pericardium contained scarcely an ounce of serous fluid. The left side of the chest contained four ounces of blood from the intercostal artery of the fourth rib, which had been wounded. In the second, the unfortunate man, in an access of despair, thrust a saddler's needle five or six times into the heart, and died three weeks afterwards, when the nature of the injury was discovered. A large ecchymosis was found on the pericardium, which was half filled with blood. The wounds made by the needle were partly closed by coagula: one penetrated the septum, a second the left ventricle, the others the right ventricle, both of which contained some black and fibrinous coagula. During his illness the pulse was not remarkable for anything; the region of the heart was not the seat of any particular movement, nor any extraordinary sound; no fainting, no dyspnœa, nor were there any other symptoms of injury of the heart present. In the third case, the patient had stabbed himself six or seven times with a file, on both sides of the chest, and died in three days. Both sides of the chest contained effused blood, on the left side in considerable quantity, so as to compress the lung, which was not permeable to air; it was furnished by an intercostal artery, which had been wounded. The pericardium was wounded in three or four places, and contained a tablespoonful of blood and pus, the effect of inflammation. The left ventricle was wounded in three places. The right ventricle contained some coagula of black blood, but no wound could be perceived in it. The principal opening in the left ventricle was closed by a coagulum. The pleura showed signs of inflammation.

Baron Percy, who treats of wounds in the heart, and M. de Blegny, relate instances of the right auricle being wounded, the man in the last case living four days ("Journal de Médicine," an. xi., p. 309); and Randall mentions the case of a negro boy, who lived two months and six days after receiving a charge of small shot in the breast, five of which penetrated the heart, three having lodged in the right ventricle, and two in the right auricle.

Case 42.—M. Chianéa relates in the "Mémoires de Chirurgie Militaire," tome 11, Paris, 1822, the case of a soldier, who survived thirty-six hours after a wound an inch long through the right ventricle of the heart, and which afterwards perforated the centrum tendinosum of the diaphragm, and lodged in the liver.

Case 43.—Steifansand, in Casper's "Wochenschrift," 1838, relates the case of a young man of twenty, stabbed in the right breast, from which wound great hemorrhage followed; it returned on the fourth day, and continued at intervals until his death on the seventh. The right side of the chest contained three pounds of blood, the cartilage of the fourth rib had been cut across, and the arteria mammaria interna divided. The knife had then penetrated the pericardium and the right auricle, the wound in it being two lines long. The right lung was collapsed and useless. This man, however, was supposed to have died from hemorrhage from the mammary artery.

Case 44.—Sanson, in his "Hemorrhagies Traumatiques," page 266, relates the case of a soldier who shot himself between the fifth and sixth ribs, and died in the Hôtel Dieu, under the care of M. Roux. The ball had lodged between the pericardium, the diaphragm, and the sharp edge of the base of the left lung; the pericardium, greatly distended, was not wounded. An incision gave vent to a quart of fluid and some coagulated blood. At the point of union of the anterior surface of the heart with its left edge, there was a loss of substance, of a round shape, contused, unequal, and about two lines in depth and three in width. There was no other wound observable.

In the "Revue Médicale" for July, 1834, there is the case of a young man who lived ten days after being stabbed in the heart, through the left ventricle, and who died of effusion of blood into the cavity of the chest.

Case 45.—Professor Mallé, in his "Clinique Chirurgicale," Paris, 1838, relates the case of a soldier wounded between the sixth and seventh ribs on the left side by the bursting of his friend's gun. The wound was small, and gave passage to neither blood nor air. The heart's motions were obscure and the pulse feeble; reaction taking place in the evening, he was bled twice to ten ounces each time. Next day, pain behind the sternum. The ear distinguished at the part a kind of undulatory crepitation, something like that heard in a varicose aneurism. Elsewhere the respiratory murmur was natural; dyspnœa; bled and cupped. The patient died on the 14th of May, having been wounded on the 28th of March.

In the chest at the wounded part there was a cicatrix. The right lung presented a small cicatrix near the heart, showing that it had been penetrated. It was hepatized around for four inches, and united by slight adhesions to the pleura. The pericardium appeared larger than usual, and contained about five ounces of reddish serum, and some fibrinous clots, two of which adhered to the heart. A foreign body was fixed in the left ventricle, and proved to be a part of the stock of the gun which had burst, and was fixed in the front and about the middle third, its free extremity, which was as large as a full-sized writing quill, projecting ten lines. The cavity of the ventricle contained a very firm coagulum extending into the aorta. The piece of wood had traversed the left ventricle and the septum, and projected into the cavity of the right ventricle.

Life in this instance appears to have been prolonged by the piece of wood blocking up the hole, and preventing the effusion of blood, which seems to have taken place in the other cases alluded to when the instrument remained in the wound, whilst in those instances in which death occurred more rapidly there were repeated effusions of blood through the open wounds.

M. Ferus presented to the Academy of Medicine of Paris, in 1826, the heart of a coal-porter, having the mark of a cicatrix half an inch long in the centre of the right ventricle, the result of a wound he had received in the chest in a quarrel some seven years before. He died of gastro-enteritis.

Case 46.—Velpeau, in his "Anatomie Chirurgicale," narrates the history of a man who died, having nine years before received a wound in the chest from a knife. He recovered after an illness of several months, but remained subject to palpitations. On examination, the wound in the pericardium was found united, the edges adhering to the chest; the heart opposite to this presented a fibrous line, penetrating through the wall of the right ventricle, and it was believed through its inner membrane.

Case 47.—Dr. Frizi states, in "Il Filiatri Sebezio," p. 27, 1834, that he was called in May to a young man stabbed in the heart by a knife, which went through the left ventricle and wounded the wall of the opposite side. At the moment of the wound there was a gush of blood, and the man fainted. When seen shortly afterwards, face pale; pulse feeble and intermittent;

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respiration difficult; slight oppression; deep-seated pain in the wound, from which a few drops of blood oozed; intellectual faculties unaffected. The patient gradually improved until the tenth day, when he suddenly fainted and expired. He survived solely in consequence of a coagulum having formed in the ventricle by which the wound was closed.

Case 48.—A man, wounded by a knife in the left side of the chest, fell, with little external hemorrhage, and, after rallying in some degree, died in seventy-eight hours. On examination, the wound was found to be over the fifth rib, three quarters of an inch from the cartilage. The left cavity filled with bloody serum; lung collapsed; evidence of intense inflammation; adhesion by bands of pleura, extending from before backwards; the rib was severed; the intercostal artery divided; the knife traversed the pericardium, passing through the left ventricle of the heart an inch from its apex, and wounding the diaphragm. The pericardium contained some ounces of bloody serum; few coagula were found either in the chest or pericardium.—*American Journal of Medical Sciences.*

Case 49.—Dr. Holmes, of Montreal, was called to a young man killed shortly before, in consequence of having been wounded by the firing of a musket, supposed to have been loaded with large shot, not ball, several of which, struck him in the left side of the chest. One only penetrated the cavity, perforated the left lung, struck the pericardium, and dropped into the cavity of the pleura. This cavity contained nearly a pint of bloody serum. The pericardium, containing a considerable quantity of blood, was not perforated, but a transverse linear opening existed in the anterior wall of the right ventricle of the heart, capable of admitting the finger.—*American Journal of Medical Sciences.*

Case 50.—Schmucker, in his "Vermischte Chirurgische Schriften," Band. 2, s. 110, Berlin, 1786, states the case of a soldier, who struck a knife into his chest at the spot where the fifth and sixth ribs join their cartilages. He lost a considerable quantity of blood; had palpitations; small, hard, and intermittent pulse; oppressed breathing; hard cough; and convulsive movements of the chest. The wound having been dilated to three inches, it was ascertained that the anterior margin of the left lung, the pericardium, and the heart, were wounded, the heart near its apex, superficially to the extent of nearly half an inch; the patient lost a quantity of blood from the wound daily, and was also bled on the fifth day; a quantity of whey-like fluid of an acid odour flowed from the wound. Purulent expectoration took place, all the symptoms diminished, and in five weeks he was apparently quite cured. A year afterwards he was in good health.

Case 51.—A soldier, wounded accidentally with a knife, on the 4th of December, 1839, between the fourth and fifth ribs, to the extent of an inch, and rather less than half an inch from the sternum, fell insensible after the loss of a quantity of blood, and was carried to the hospital at Strasburgh, and placed under the care of M. Henri. The sounds of the heart on his arrival were obscure and very feeble; the wound was closed, but on making the slightest exertion, as in sitting up, blood spirted out as from a stop-cock, in a stream the size of a pen, and to the distance of four inches from the chest; he was bled to twelve ounces, which relieved the anxiety and sense of suffocation of which he complained. He was bled next day to eight ounces, and the next day five times, once to twenty ounces, three times to fourteen ounces, and once to ten ounces; the day after three times, to about thirty ounces, and the next day to twelve ounces. The pulse was during this time quick and irregular, and the movements of the heart tumultuous. Oppression trifling. The *bruit de rape* was distinctly heard during the contraction of the ventricles. After this he gradually improved, was allowed to sit up on the [illegible] of June, 1840, and was dismissed cured on the 14th of August 1841.—*Annales de la Chirurgie*; *Monthly Journal of Medical Science* for 1842.

M. Breschet, in the "Repertoire d'Anatomie," tome 4, page 196, relates the case of a gentleman killed in a duel, in whom the vena azygos was wounded immediately above where it joins the vena cava; and Guattania, in his work "De Aneurismatibus," mentions the case of a man who survived a wound of the aorta eight years.

Auscultation and percussion, and principally auscultation of the whole præcordial region, have afforded means of judging of injuries of the heart, which were not formerly known. Dr. Hope ("Diseases of the Heart," p. 3) says:—"A line drawn from the inferior margin of the third rib, across the sternum, passes over the pulmonic valves, a little to the left of the mesial line, and those of the aorta are behind them, but about half an inch lower down. A vertical line, coinciding with the left margin of the sternum, has about one-third of the heart, consisting of the upper portion of the right ventricle, and the whole of the left, on the left. The apex of the heart beats between the cartilages of the fifth and sixth left ribs, at a point about two inches below the nipple, and an inch on its external side."

Dr. Latham ("Lectures on Clinical Medicine," 1846) remarks:—"If one leg of a compass be fixed at a point midway between the junction of the cartilage of the fifth rib on the left side, with the rib and the sternum, and a circle of two inches in diameter be drawn around, it will define as nearly as possible the space of the præcordial region, occupied by the heart, whilst uncovered, except by the pericardium and some loose cellular texture. In the rest of the præcordial region it is covered and separated from the walls of the chest by the intervening lung."

If the chest of the dead subject be transfixed with long needles, it will be found that the centre of the first bone of the sternum corresponds with the lower edge of the left subclavian vein, and to the arch of the aorta crossing the trachea; the centre of the second bone to the upper edge of the appendix of the right ventricle; and the centre of the third bone corresponds to the right side of the right auricle; the right ventricle being lower down. A needle penetrating the chest at the costal extremity of the fifth rib, close to the upper edge of its cartilage, will touch the septum of the ventricle. The apex of the heart is an inch and a half below this, and inclined to the left side.

The semilunar valves of the pulmonary artery correspond to a spot a little below the centre of the third bone of the sternum. The aortic valves are a few lines below and behind the pulmonary. The mitral valves are a little lower, and still more deeply seated. The pulmonary artery, after touching the sternum, inclines to the left, and is found close to the sternum, between the second and third ribs. The aorta ascends to the first bone, and crosses it to form the arch.

One-third of the heart, consisting of the upper part of the right ventricle and of the whole of the right auricle, is beneath the sternum; the remainder of the right, with the left ventricle and auricle, is to the left side of that bone.

On applying the ear to the præcordial region, the patient being in the erect position, two sounds are distinguishable in a healthy heart—one duller and more prolonged, the other clearer and shorter: between these there is scarcely an appreciable interval. The period of repose is sufficiently marked before the first or duller sound returns. Of the time thus occupied one half is filled up by the first or dull sound; one quarter, by the second or sharp sound; one quarter by the pause or period of repose.

Laying aside certain physiological differences of opinion on the nature and causes of these two sounds during a state of health, it may be conceded, in the present state of our knowledge in England, that the first or dull sound depends on the muscular contraction of the ventricles; and that the second arises from the closure of the sigmoid or passive valves of the heart, by the recoil of the blood thrown back upon them by the aorta and the pulmonary artery.

Andral and others, in France, are not at present inclined to assent to this theory, which they consider too abrupt, and are disposed to attribute the second sound especially to the sudden tension of the sigmoid valves, caused by the blood passing behind them upon their superior surfaces, and as auxiliary causes, the sudden opening of the auricular ventricular valves, and the passage of the blood into the ventricles. A difference of opinion without much distinction, and in no way more explanatory even if the theory should prove more correct.

The pulse of the heart, as far as can be felt by the touch, depends much on the position in which the body is placed. In the erect position the apex strikes between the fifth and sixth ribs. In the recumbent posture, the impulse is almost imperceptible. It is, perhaps, more observable when the body is turned on the right side, but decidedly more so when it is turned on the left. A clearer sound proceeds from thin, and a duller sound from a thick, heart; a sound of greater extent from a large heart, and a sound of less extent from a small one. A more forcible impulse is given by a thick heart, and one more feeble by a thin one; the impulse is conveyed to a longer distance from a small heart.

From a clearer sound, we believed in the probability of an attenuated heart; but we argue its certainty from a clearer sound joined with a weaker impulse. A stronger impulse denotes the probability of a hypertrophied heart; but we argue its certainty from a stronger impulse with a diminished sound.

Dr. Latham has well illustrated and supported the use of the terms systolic and synizetic, to designate the alterations which take place in the sounds of the heart under diseased circumstances when they occur within the ventricles and auricles, when they take place between them.

The diseased alterations of these two sounds raises a doubt, and is sometimes a certain case for, the first or second, or even for both the healthy or natural sounds. The superficial murmur of disease is usually heard with the natural sounds, but sometimes it supersedes, sometimes overwhelms them, by its rubbing or crumpling noise. The natural second sound, although rendered imperceptible by the greater distinctness and nearer approach of the unnatural or diseased one, never quite ceases.

The heart, apart from the pericardium, never moves without sounds; the pericardium, apart from the heart, never gives out sound. Under disease, the heart gives out its natural sound diminished, enlarged, or annihilated, or is only heard as a distant sound. The sounds given out by a diseased pericardium must always be new, there being no healthy sound ever distributed as rubbing or crumpling sounds. The pleura, when diseased, being similar in structure, like the outer membrane of the pericardium, gives out less marked but somewhat similar sounds (the *bruissement* of the French), in particular stages of disease.

The alterations in the ordinary sounds, constituting the endocardial murmurs of the heard under disease, depend principally on the altered state of the endocardium, or membrane lining its cavities; the sounds given out, and called endocardial, in an altered state of the adventitious membrane of the pericardium, are reflected over the outer surface of the heart. The endocardial or bellows sounds, when it is suspended, the normal sounds of the heart, may result from any kind of derangement affecting the internal structure of that organ, particularly the cause of inflammation, or from any of those causes which increase its cavities; it may depend on the diseased quality of the blood, from anæmia, or the inhibitions present after excessive hæmorrhage have greatly reduced the power of the ventricles. When this murmur or sound occurs after injury in the vicinity of the heart, and is accompanied by symptoms indicative of inflammation of the lining membrane, although no local pain, no palpitations, nor irregular movements of the heart, is visible, it is present.

When a murmur or sound is heard of a different kind, possessing the characters of friction, or of surfaces moving backwards and forwards on each

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other, or to and fro, this sound is the sign of inflammation of the membrane covering the heart, as well as of that lining the fibrous external tissue of the pericardium. The signs of both external and internal inflammation may be present at the same time, and they frequently are in cases of acute rheumatism.

When the heart is supposed to be wounded, even without much loss of blood, there is fainting; palpitation; irregular movement of the heart, or total cessation of its action; coldness of the extremities; ghastliness of countenance, succeeded by great anxiety; a sense of anguish; an intermission or cessation of pulse; followed, if the patient should survive, by reaction, which renders it very frequent, and sometimes increases its impulse, whilst the anxiety is increased by pain, sometimes intolerable, referred to the part. These symptoms imply a serious injury, although they may not all be present, and many of them differ in intensity. If the patient should survive, the ordinary sounds of the heart will return, with more or less irregularity, accompanied, after a few hours, by the endocardial murmur, although something like it may, perhaps, be observed from the first periods of injury. The friction, or attrition sound, indicating the presence of inflammation of the pericardium, may be absent, and will not be discernible, if a layer of blood is effused into the cavity of that membrane, whilst the natural sounds of the heart are rendered more indistinct as the heart is separated from the walls of the chest by the effusion, which distends the pericardium, whilst it also impedes the regular action of the muscle, and so impedes the heart, as an impervious does the lung. If inflammation take place without an effusion of blood, the friction sound will be heard, and will usually continue even after some effusion of serum and of lymph has occurred, as the quantity of serum is rarely sufficient to prevent the effused and attached portions of lymph from rubbing against each other.

The presence of a larger quantity of fluid may be more distinctly known by percussion, if it can be borne in cases of injury, the degree and extent of the dulness being the measure of its existence and accumulation. It may extend over a part or the whole of the precordial region, reaching as high as the second or even the first rib, beneath the sternum, and even under the cartilages of the ribs of the right side.

M. Jobert, of Lastbelle, supposes first that a penetrating wound of the heart gives rise to a peculiar sound, resembling that which is heard in an aneurismal varix. Secondly, that it is accompanied by a constant convulsive action of the muscular fibres of the heart. Thirdly, that the sound ceases if the wound should be closed by a coagulum, but that the convulsive motions continue for some time after the patient survive. These observations have not been verified in all cases.

That the heart when wounded is capable of recovery by the permanent closure of the wound, in a few rare instances, is indisputable, and it would seem, from a consideration of the different cases which are recorded, that such recovery takes place in consequence of there being little blood discharged through the wound, or into the cavity of the pericardium, or into that of the pleura. The absence or the cessation of hemorrhage, by the extraction of the wound, or the formation of a coagulum, is the first step towards a cure; and it would appear that it is to one or other of these circumstances that most of those who survived the injury for several days or weeks owed their existence for the time, although they usually died from the effects of inflammation, more of the investing and outer covering, than of the substance of the heart itself. If unsuccessful, it has been ascertained by the older surgeons, who have recorded many of these cases, the cause of the inflammation would, in all probability, have been discovered.

If the wound be inflicted by a musket or gun shot, it cannot be actually closed, although pressure may be made upon it for a time, so as to suppress the external flow of blood. If this should succeed, it is more than probable that the hemorrhage will continue internally, and that the patient may die after much suffering, principally from oppression caused by the escape of blood into the cavity of the chest.

If the wound be a stab, the external opening may be accurately closed, and the escape of blood prevented; but, as the pressure of the blood in the pericardium is unequal to restrain the action of the heart, blood forced out through the opening fills the cavity of the pleura, and causes suffocation, unless from some accidental circumstance the opening in the heart becomes obstructed, and the bleeding ceases.

If all the circumstances be considered, there can be no doubt of the propriety of closing the wound in the first instance, if the flow of blood is excessive, and appears likely to endanger life. It seems to be as little doubtful that the wound should be reopened after a time, if the danger from suffocation be imminent; the relief obtained by the escape of a little blood may be efficacious, whilst it does not necessarily follow, although it is more than probable it will be so, that its place will be occupied by a further extravasation of blood, which will prove fatal. It is a choice of difficulties, and death from hemorrhage is easier than death from suffocation.

In the case of the Duke de Berri, whose right ventricle was wounded, and who died from loss of blood, Stoifensand, reprehends Dupuytren for having opened the external wound every two hours, to prevent suffocation; but if death were actually impending from the filling of the cavity of the chest being about to cause suffocation, there was nothing to be done but to give relief at all hazards.

The "Campaigns and Memoirs" of Baron Larrey have not furnished cases of wounds of the heart; sufficient attention could not be paid to them on the field of battle, nor in the hospitals afterwards; they, therefore, escaped observation. In his "Clinique Chirurgicale" he relates, however, at length, the history of seven cases brought to the military hospital in Paris, the results of duels, or of attempts at suicide, four of which recovered. In the first fatal case, the right ventricle was wounded by the sword. In the second, the ball went through the upper lobe of the left lung, injured the wall of the left ventricle, passed between the aorta and the œsophagus, injuring both, through the root of the right lung, and broke the sixth rib in its passage outwards. No fluid was formed in the left side, but about a quart in the right. In the third case the sword penetrated the pericardium, but did not wound the heart; the internal mammary artery was wounded. The pericardium contained about a pint of fluid. In the first successful case, the pericardium alone was supposed to be wounded by a ball. In the second, the sword injured the lower edge of the seventh rib behind; wounded, it was supposed, the intercostal artery, the lung, the pericardium, and perhaps the heart, in consequence of its pulsations being felt by the end of the finger when introduced through the anterior wound. The posterior wound was closed without attention being paid to the bleeding artery. After much inflammatory action the patient recovered in March, 1820, from the wound inflicted in December, 1819. In the third successful case, Sch—— was wounded when drunk, the 22nd of February, 1814, with a sword half an inch wide, which penetrated between the xiphoid cartilage and the extremities of the seventh and eighth ribs of the left side, through the rectus muscle. He lost a quantity of blood, and appeared to be in great danger. Next evening the wound was enlarged, when a considerable discharge of bloody serum ensued. On the 27th, it being supposed that fluid was effused into the cavity of the chest, a female sound was introduced, and a large quantity of red-coloured fluid evacuated. A gum-elastic catheter being then passed in, to the extent of five inches, several ounces more fluid were drawn off, and no doubt remained on the minds of all present that the end of the catheter was struck by and obeyed the movements of the heart. On the 15th of April he was discharged cured.

In the fourth or last successful case, P. D. was wounded by a sword the 13th of July, 1826, in the epigastric region, which penetrated the rectus muscle, between the ensiform cartilage and the seventh rib; into which wound a female sound entered to the extent of three inches, and drew off about eight ounces of a reddish-brown fluid, with great relief. Before this was done, the pulse could scarcely be felt, extremities cold, the pulsation of the heart very feeble, the false ribs without motion, oppression, extreme anxiety, convulsive movements of the lips and jaws, speechless, prostration extreme; as he had lost a good deal of blood, the wound was, therefore, closed. On the third day, two ounces of serous fluid escaped on raising the dressings; symptoms of pericarditis becoming evident, he was bled for the first time, and was cupped over the heart. The serous fluid continued to be discharged daily, and became purulent about the eighth day. In forty-five days he left the hospital cured. The pulse remained small, the countenance pale, the side of the chest fallen in a little, and the nipple half an inch lower than that of the opposite side.

These four cases are all apparently wounds of the pericardium, and not of the heart. They are well-attested cases of the secretion of the pericardium draining from its cavity for days, and a cure being effected by adhesion, in all probability, of the two secreting surfaces to each other. In the first fatal case, the wound having been closed and having united, effusion or a collection of fluid was supposed to have taken place into the pericardium. The fingers placed upon the cicatrix received an impulse on coughing as from a fluid, the pulsations of the heart could scarcely be felt or heard, the oppression and anxiety were great. An incision was, therefore, made parallel to the edge of the sixth rib, a little below the cicatrix. The intercostal muscles between the fifth and sixth ribs were carefully divided by layers, until the pleura was felt distended by fluid; which being penetrated, a quart of a yellowish-brown fluid, mixed with some clots of blood, was evacuated by jets. On introducing the fingers into the opening the apex of the heart was felt. The wound was closed, but the edges of the opening did not unite, and some reddish-coloured serum was discharged until the eighth day, when it became purulent. After this the discharge ceased, and it was necessary to reopen the wound with a probe, which reestablished the discharge for a time with good effect. Symptoms of general derangement, however, supervened, such as vomiting, colic, dysentery, &c., and the man died thirty-three days after the injury, and twenty-one after the operation. The pericardium was found adherent to the heart, the right ventricle of which was wounded. A newly-formed sac, exterior to the pericardium, had been opened by the operation instead of it. A nearly similar circumstance is recorded to have happened to Desault, who performed the operation in the following manner—Having made an incision between the sixth and seventh ribs, at the point corresponding to the summit of the heart, he divided the interlacing fibres of the external oblique and pectoral muscles, and then the intercostal muscles, leaving the internal mammary artery to the inside. The wound thus made being large enough to admit the point of the fingers, a sac containing fluid was discovered and opened. The patient died a few days afterwards, when it was ascertained that the pericardium was below the sac which had been opened, and that it had not been touched. By this method of operating, it is scarcely possible to avoid opening into the cavity of the pleura.

The result of these cases induced Baron Larrey to propose the following operative method for opening into the pericardium, when filled with fluid (hydrops pericardii), from whatever cause:

"An oblique incision is to be made from over the edge of the ensiform cartilage, to the united extremities of the cartilages of the seventh and eighth ribs. The cellular tissue being divided

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with some fibres of the rectus and external oblique muscles, there remain only a portion of the peritoneum, called its false layer, above the pericardium, which can be seen, after the division of all intervening cellular tissue, projecting between the first and second digitations of the diaphragm, into which the bistoury is to be entered, with the precaution of doing it with the edge turned upwards, and directed a little from right to left, to avoid the peritoneum. The smallest portion possible of the anterior border of the diaphragm is next to be divided where it is attached to the inner part of the cartilage of the seventh rib. The internal mammary artery is to the outside. The patient should be placed perpendicularly, and supported on his bed, which inclines the anterior part and base of the pericardium to the fore part of the chest."(a)

Skielderup recommends this operation to be done by trepanning first the sternum, a little below the spot where the cartilage of the fifth rib is united to that bone, at which part the periosteum lining it offers considerable resistance, and should not be divided by the trephine. Below this there is a triangular space formed by the separation of the layers of the mediastinum, free from cellular tissue, and tending a little more to the left than to the right. The apex of this triangle is opposite the fifth rib; its base touches the diaphragm. The bone having been removed, the patient is made to lean forwards, when the projection of the pericardium will enable the operator to feel that a quantity of fluid is within, and to open it with safety.

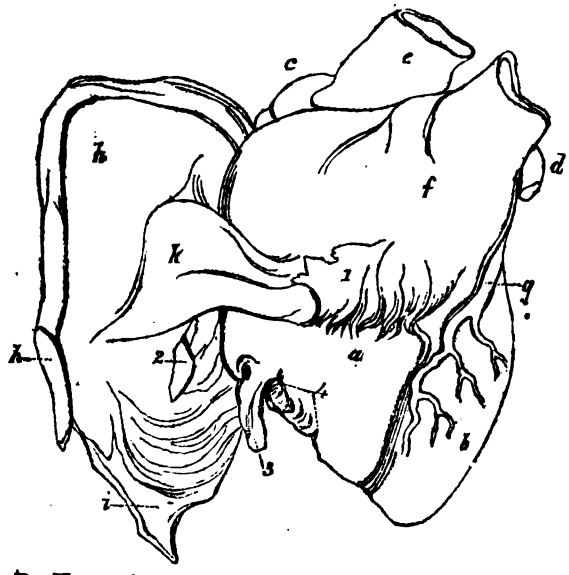
Dr. Skoda, of Vienna, has operated in several instances, in cases of dropsy of the pericardium, one or two of which are reported to have been successful. An English physician, it is said, has also performed this operation with a canula and trocar, and in so doing transfixed the ventricle, the consequences being immediately or speedily fatal.

Case 52.—J. Dierking, a stout, muscular man of the 3rd Regiment of German Hussars, was wounded at the battle of Waterloo by a lance; which penetrated the chest between the fifth and sixth ribs, and was withdrawn. He fell from his horse, lost a good deal of blood by the mouth, and some by the wound, and was carried to Brussels without any particular attention being drawn to the injury. His strength not being restored, whilst he suffered from palpitations of the heart, and other uneasy sensations in the chest, he was sent to England to be invalided, and from the Savoy Barracks in the Strand, in November, 1815, to the York Hospital, Chelsea, in consequence of an attack of pneumonia, of which he died in two days, without attention being particularly drawn to the wound. Placed on the examination-table in the hospital for a dissection of the perineum, I thought I would not miss the opportunity of tracing the effects of the wound in the chest, in doing which I found to my great surprise that it had been a case of wound of the heart and diaphragm. Having removed the parts, they became the first preparation made for the Military Medical Museum, now at Fort Pitt, Chatham. It is in class 1, div. 1, sect. 7, No. 156.

The lance, having injured the edge of the cartilage of the rib, passed through the inferior lobe of the left lung, the track being marked by a depressed narrow cicatrix. It then perforated the pericardium under the heart, and sliced a piece of the outer edge of the right ventricle, which, being attached below, turned over and hung down from the heart to the extent of two inches, when in the fresh state, the part of the ventricle from which it had been sliced being puckered and covered by a serous membrane like the heart itself. The lance then penetrated the central tendon of the diaphragm, making an oval opening, easily admitting the finger, the edges being smooth and well defined. It then entered the liver, on the surface of which there was a small irregular mark or cicatrix. The heart in front was attached to the pericardium by some strong bands, the result of adhesive inflammation, but the general appearance of the serous membrane showed that this had not been either great or extensive. The pericardium was not thickened.

If this man had lived long enough, he might have furnished an instance of hernia of the stomach or intestine into the pericardium.

(a) Larrey—"Clinique Chirurgicale," p. 308, tome 2.



a Right ventricle.
b Left do.
c Right auricle.
d Left do.
e Aorta.
f Pulmonary artery.
g Coronary do.
h A portion of the cartilages of the ribs seen on the inside.
i A portion of the diaphragm.
k The pericardium.

1. A portion of the pericardium reflected to show abnormal adhesions to the surface of the heart.
2. Aperture of wound through the diaphragm and the pericardium.
3. Pendulous slice off the substance of the right ventricle.
4. Puckered cicatrix of the wound of the ventricle.

Dr. Hennen has given an erroneous account of this case from Dr. Blackadder, one of the assistant-surgeons at York Hospital, who was not present at the opening of the body, but merely had charge of the preparation at a subsequent period.

The structure of the heart exerts considerable influence on the nature of the wound, and on its tendency to remain open, or to become contracted and partially closed. MM. Vaust and Gerdy have shown that the ventricles of the heart are composed of three layers of fibres superimposed, one on the other. The outer and middle of the left ventricle descend from the base to the left of the apex. The inner layer, which surpasses in thickness the other two, crosses them almost transversely, so that a small slanting wound of the anterior part of the left ventricle, extending across towards the left side from a quarter to half an inch, would do little more than separate and injure the two anterior layers, whilst the third or deep one would be cut across. The wound, under such circumstances, would neither be wide nor direct; its irregular contraction would offer obstacles to the passage of blood, might even give time for its coagulation, and thus offer a chance of complete obstruction and obliteration; as much will also depend on the obliquity with which the instrument passes into the heart, as on the smallness of its size—a mere puncture being often followed by little inconvenience, although the retention of the weapon will often give rise to the most serious symptoms.

That the heart when exposed is insensible, or nearly so, to the touch, was known to Galen and to Harvey. Galen is said to have removed a part of the sternum and pericardium, and to have laid his finger on the heart. Harvey did the same in his experiments on animals, and on the son of Lord Montgomery, who was wounded in the chest. Professor J. K. Jung not only introduced needles into the hearts of animals, but also galvanized them; and Mr. Searle, in India, is alleged to have tried acupuncture of the heart for the cure of cholera without disadvantage. Peyron punctured the heart of a young woman, eighteen years old, for the relief of rheumatism, with needles, two of which, it is said, remained inserted in the heart for forty-eight hours, and it is affirmed with success.

Although needles when withdrawn are said to do little mischief, they are the cause of death when they remain, and generally from inflammation. Zacchias reports a case, vol. i., lib. v., let. 2, quest. 2, in which a madman, who had otherwise mutilated himself, lived six days after pushing several needles into his heart. Renauldin says, in the "Archives Gén. de Médecine" for 1833, that another maniac in the Hôpital Beaujon, in Paris, lived several weeks after running a needle three inches long into his heart, and then died of pericarditis. Sue records, in the "Recueil Per.," t. 8, p. 31, the fact that a lady of rank in Sardinia, in 1728, killed her husband almost suddenly by means of a gold pin, which she thrust through the right ventricle of the heart whilst he slept.

Sir G. Ballingall reports, page 296, in his "Outlines of Military Surgery," that Admiral Villeneuve is supposed to have died suddenly from running a pin into his heart; and that Dr. Grace, of Cupar, had informed him of the death of an individual in his neighbourhood, in two days, who had run a large worsted needle into his right ventricle.

Case 53.—In the "Journal Médical Militaire de St. Petersbourg," vol. 29, part 2, it is stated that a soldier was brought to the hospital of Lublin, who had, two days previously, thrust two needles into the præcordial region of the chest, where they remained. He died on the nineteenth day. The two needles were found in the inferior part of the left lung, with the points turned towards the pericardium. This part of the lung was the seat of a diffused inflammation for several inches. Purulent matter had formed in the track of the needles from the ribs. The pericardium was thickened, and contained a quantity of puriform fluid, like the deposits of all serous inflammations. The layer attached to and deposited upon the heart was two lines thick, as well as that upon the lining of the pericardium itself. The ventricles contained coagulated blood.

Sir Stephen Hammick, when surgeon of the Royal Naval Hospital at Plymouth, had a case reported by Dr. Hennen, in his "Military Surgery," in which a pin was lodged in the heart, the patient not being aware of it. He died, having complained of pain in the part for three months before, of hypertrophy of the heart, effusion of lymph, and adhesion to the pericardium.

Case 54.—In the *Medical Gazette*, vol. 17, page 82, it is related of a gentleman, that he pushed a darning needle into his chest, between the fifth and sixth ribs; acute inflammation of the heart or its membranes followed, and Dr. O'Connor bled him to sixty ounces, when he was able to lie down. In forty minutes the symptoms returned, when the patient confessed what he had done. An incision was made, and the end of the needle discovered, which could only

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be seized by a pair of watchmaker's fine forceps; on its withdrawal it was found to be three inches and a half long. The symptoms subsided, and in five days he was well; he lived ten years afterwards.

That a person may die from the shock of a blow on the heart, need not be doubted; and that they do die when little blood is lost, is admitted. History preserves the fact, that Latour d'Auvergne, who had obtained the honourable title of "Premier Grenadier de France," and captain of the 46th demi-brigade fell, and died immediately, after receiving a wound from a lance at Neustadt, in the month of July of the sixth year of the republic, which struck the left ventricle of the heart, near its apex, but did not penetrate its cavity. He was, however, sixty-eight years of age.

I have little to state with respect to medical treatment, from experience. All extraneous matters should be removed if possible, and all inflammatory symptoms should be subdued by general bleeding, by leeches, by calomel, antimony, and opium, &c. The chest should be examined daily by auscultation, and as far as may be by percussion. If the cavity of the pleura should fill with blood, it ought to be evacuated to give a chance for life, as in other cases of a similar nature, to be hereafter noticed; and, if the pericardium should become permanently distended by fluid, it should be evacuated by the method of Harvey, which appears to be the best.

Lacerations and ruptures of the heart have frequently taken place from blows or other serious contusions: Sanson, "Plaies de Cœur," Theses 1827, reports a case in which the man lived thirteen days after a piece of the sternum, an inch long, had been driven into the substance of the heart, without penetrating either of its cavities. Blancard, "Anat. Pract. Ration," Amsterdam, 1688, says that a peasant was run over by his cart loaded with hay, causing pain in the chest, without fracture of the ribs or sternum; he resumed his labours after four days' rest, but, being attacked by fever some days afterwards, died on the eleventh day, of inflammation with ulceration of different spots on the surface of the auricles, and of the upper part of the left ventricle.

It would serve no practical purpose to occupy more time or space in the relation of particular cases of rupture of the heart from accidents. Ollivier, *loco citato*, who devoted much time to reading and collecting the observations made by different writers on the injuries of the heart, says, page 343, in confirmation of the remark of Morgagni, Epist. xxvii., sect. 10, "that, of forty-nine cases of spontaneous rupture of the heart, thirty-four were of the left ventricle, eight only of the right, two of the left auricle, three of the right, and that in two cases both ventricles were torn in several places; and that these results were in an inverse proportion to those which occurred after blows or contusions—the right ventricle being ruptured in eight out of eleven cases, the left ventricle three times; the auricles being also torn in six of these eleven cases; the ruptures not being confined to one spot, but taking place occasionally in several different parts, or even in the same ventricle." In eight of the cases he had noticed, the heart was ruptured in several places, and he refers, in proof among others, to the works of Morgagni, Epist. 64, sec. 15; of Rostan, "Nouv. Journ. de Méd.," 1820; of Portal, "Académie des Sci.," 1770, p. 51; of Andral Fils., "Arch. Gén. de Méd.," t. 4, p. 616; of Ashburner, "London Med. and Phys. Journal," December, 1822; of Bland., "Biblioth. Médicale" vol. 62, p. 364, 1820. Some of them, as noticed by Ploucquet and Bayle, quoted in the "Revue Medicale" for July, 1824, resemble the wounds made by a musket-ball. A spontaneous rupture of the heart, from any of the several causes which may give rise to it, is not always, although it is in general, immediately fatal. Frank, "De Rupt. Cordis," vol. viii., reports a case in which the patient lived twelve hours after its occurrence; and in "Rust's Magazine," &c., vol. xvi., p. 92, there is another, not, however, spontaneous, in which a child, six months old, lived fourteen hours after the right auricle had been ruptured. That a spontaneous rupture may be cured, seems likely from a case, reported by Rostan, of a woman, who died after fourteen years' suffering with pain about the heart, and was found to have ruptured the ventricle; a cicatrix was observed to the left side of the recent rupture, half an inch in extent in every direction, and in which the new matter was evidently different from the natural structure of the heart.

CLINICAL OBSERVATIONS ON SOME OF THE MORE FREQUENT DISEASES OF CHILDREN.

By W. HUGHES WILLSHIRE, M.D. (Edin.), M.R.S., Physician to the Royal Infirmary for Children, &c.

(Continued from p. 374.)

GENTLEMEN,—You will remember that in my last lecture I was speaking to you of some peculiarities of *fever* occurring in the child yet at the breast, and that my remarks more particularly applied to febrile symptoms of a *symptomatic* form. To-day I shall occupy your attention with some observations relative to fever of an *idiopathic* kind. It appears to me that upon no subject would you be more likely to get confused than on this, if you attempted to get your knowledge of this important phase of disorder from reference to books; and I am bound to say that, contrary to a general rule, the continental writers, to my mind at least, appear to have put stumbling-stones in the way of our path, rather than helped the English writers to remove them out of it. This has arisen chiefly from the attempts made by the former, to reduce many varieties of idiopathic fever to mere symbols or partial expressions of chiefly some inflammatory disorders of the stomach and intestines, which latter they regard as *the* disease, and look upon the fever as merely attendant and symptomatic. That we have plenty of gastro-enteritic disorders, accompanied with marked symptomatic fever, in children above three years of age, is no doubt true; but that we have no such thing as true idiopathic fever perfectly independent of any gastro-intestinal lesion, and of which it is not the effect or constitutional symptomatic condition, is what I do not believe. It is true that some of the better continental writers, like Rilliet, Barthez, Fabre, and others, admit of and describe an idiopathic typhoid fever occurring chiefly in children of above eight years of age, but they still reduce all other forms to the mere symptomatic disturbance of gastro-intestinal disorder, mild or severe as the latter may be. But, independent and apart from this admited idiopathic typhoid fever, I believe in the existence of an idiopathic remittent which, in some respects, answers to the common continued fever of adult life, and also that this fever is very frequent indeed in children of from about three to seven or eight years of age, but that, whilst one of the most common, it is one of the least fatal of their disorders.

By many English writers the existence of this "infantile remittent" is freely acknowledged and treated of, but, like Pemberton, Joy, Underwood, Evanson, Maunsell, Sir Henry Marsh, &c., they, to use the words of the Dublin writers, "in classing the infantile remittent fever among affections of the digestive organs, declare sufficiently their opinion of its origin and nature." Others, like Dr. Butter, have been more vague in their ideas, and form a sort of link between those who look upon "infantile remittent" as symptomatic, and those who believe it to be frequently idiopathic. Dr. Butter attributes this fever "almost exclusively to a weak state of the digestive organs, to morbid accumulations in the primæ viæ, and to that peculiar irritability of habit and proneness to fever which distinguish the period of infancy." (Butter, quoted by Joy in "Cyclo. Prac. Med.") A few, like Dr. Copland, however, and with whom I coincide, affirm that this fever does not consist of inflammation, as is shown by the character of its early symptoms, by its course, termination, and consequences, and by its *jwantia* and *ladentia*; that the digestive disturbances, although they may appear early in its course, themselves proceed from an anterior disorder; that this anterior disorder, and in which the nature of the fever is seen, is one which proceeds from causes impairing the energy of the organic nervous system, and of the organs by which this system is more immediately influenced. (See Copland on "Remittent Fever of Children.")

I shall now pass on to the symptoms of remittent fever, begging you to remember that whilst I do not deny that there occur abundant examples in which disease of the mesenteric glands, gastric or intestinal irritation and inflammation, tuberculosis of the spleen, scrofulous inflammation of the peritoneum, verminous affections, and other like disorders, are accompanied with prominent *symptomatic* remittent, yet that we can throw aside all such circumstances, and find a fever, very frequent in its occurrence, owning no such causes, or necessarily bringing in its train of effects such local modifications and changes. Such fever I believe to be truly idiopathic; and it is of this that I am about to speak. That there is sometimes much difficulty in distinguishing between a severe form of symptomatic and idiopathic remittent, I also admit; or I may say it is not always very easy to determine whether the local affection is to be viewed as the original disorder, or as a complication or coincidental accompaniment to the fever, which is the more primary. If we are not able to do so from the previous and present history of the case, we have to rely upon its future course and progress, which will help us materially.

Remittent fever, as seen occurring in children, presents many modifications, but I think we may arrange all of them under two chief heads, viz., the *acute* and *chronic*, and of these, especially of the first, we may have several varieties. The latter, however, may again be divided into the *simple* and *typhoid*; and this is the only subdivision I think it at present necessary to make; but if you refer to the paper of Dr. Joy in the "Cyclopædia," and to that of Dr. Copland in "The Dictionary of Practical Medicine," you will find more upon this matter. I shall first describe the earlier symptoms of a case of simple remittent, but of a marked and determined form.

Some morning in the infirmary, after a change of weather from cold and dry, to damp and warm, after we have had a run, perhaps of affections of the respiratory organs, a great many of the children presented to us will be described by the mother as being "so bodily ill," or "ill all over," or "hanging so about," or that she cannot well say what is the matter. If the child is young it is carried in the mother's arms or seated on her knee; if older, the mother at once places the child on the chair, indicating to us the notion she has formed of Cullen's *virtus præsertim artuum imminutis*. All this exemplifies the existence of what I have before called *general mal-aise*. On inquiry, she says the child has no appetite whatever, but has great thirst; that all it wants is cold water; that the bowels are costive, perhaps obstinately so; and that the child, especially if young, is occasionally sick when she tries to make it take something; that it does not pass much urine; sometimes she will say that it has not passed any for twenty-four hours. On inquiry we find it gets very hot in the afternoon or at night, or both, and at those times seems worse than at any other; but that in the morning it appears better again. That, if older, it complains of its head and stomach, or of vague pains not easily definable anywhere. On looking at such a patient we notice that the eyes are brighter than usual; that there is a flush on both cheeks, or on one only; that the covered portions of the body are warmer than usual, or, if the paroxysm is on, very hot indeed; that the tongue is coated, especially towards the base, often spotted, as it were with red spots on a greyish-white layer,

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but the tip free; that the mouth is dry, or, if moist, there are some aphthoid exudations or stomatitic ulcerations in it, and the breath is disagreeable, or acid and warm, if we approach it closely; that the pulsation and respiration are increased in their rates; and that, usually, some cough is present. These conditions may be described as having lasted but a very short time, or for many days, as the case may be. Now, such a child is labouring under simple remittent fever of a very decided and marked character, and on the same day child after child will be presented to us labouring under some variety of the like malady, indicating the existence of some general cause then in full operation, but to perceive the more important signs of which, the child must be labouring under a paroxysm of the fever.

In some of the symptoms I have given you, I differ slightly from one or two writers; but I must assure you I have drawn them from repeated observations as I see fever at the infirmary. Dr. Joy says "there is hardly any thirst, so that the patient in some cases can scarcely be got to take either food or drink." This, as it applies to the one appetite, thirst, is entirely at variance with my experience as the general rule. Dr. Butter is said by Dr. Joy to affirm also that there is "little thirst." Other writers do not lay that stress upon a primary constipated condition of the bowels which I am disposed to do, although I freely admit that sometimes diarrhœa sets in even early in the complaint. The action of the intestinal canal is throughout the course of the fever generally either very costive or very loose. In the less common cases we find the frequency of the alvine discharges natural, and in others we are told there often are worms. Many of the earlier foreign writers believe that there always exist worms, and even, in our common language this fever is yet sometimes called *worm fever*. That this is not an infrequent complication is true, but that is all. In young children ascarides, lumbricoides, lumbrici, and tæniæ are met with. I have known tænia as early as three years of age. Some persons have laid stress upon a "milky" condition of, or "a white phosphatic," urine, or "frothy and fermenting stools like barm;" but I know of nothing special to the urine or to the stools of remittent fever: they both may be of all kinds and descriptions during its progress, or in its earliest stage. It is true the urine is often small in quantity, of deeper orange colour than usual, and, as I have said, sometimes not passed, according to the mother's account, for many hours; but this we can only call febrile urine, after all.

A child labouring under the symptoms I have just detailed will continue to do so for from ten to twenty or thirty days, having during the first portion of this period regular exacerbations and remissions of the fever, but which gradually decline as the fever subsides. Or at first the fever rises, the exacerbations become a little more severe, the child more inclined to sleep during the day, and very heavily so at night; the bowels present a little more derangement, and the cough increases in frequency and intensity. Older children will talk in their sleep; there may be slight delirium. The loss of flesh in the child becomes very apparent. But gradually, as I said, the paroxysms become less severe, the vivacity of the patient returns, the appetite increases, thirst diminishes, the tongue becomes clean, the dejections natural, and the child gains flesh and strength. The fever terminates. But such a course of the malady may be materially deviated from. The fever itself may become combined with very severe and important local complications either of the head, chest, or belly, or these may to a great extent be wanting, and the fever put on an adynamic or typhoid form.

One of the most frequent modifications you will meet with is as follows:—The exacerbations of the fever become more intense and frequent, and during the remission the patient suffers very considerably. The intestinal canal becomes much disturbed, diarrhœa supervenes, and the belly may become tense and swollen. The lips become very red and cracked, or bright and glossy; herpetic eruptions break out about the mouth and lips, or severe aphthoid or stomatitic ulcerations of the inside of the oral cavity and on the tongue are seen. The tongue is more coated, and the appetite worse than before. The child gets thinner daily, pale, and wretched-looking. It is very peevish, and is constantly picking its lips, mouth, or face. The *mal-aise* becomes intense; eczematous eruptions will sometimes break out, and erythema of the thighs, &c., in younger children be seen. Even inflammation and ulceration of the pudendum will occur. It may happen that things get still worse, the fever get lower, and the child succumb; but the rule is quite the reverse, for, notwithstanding the apparently severe form of the malady, the child gradually gets well. The symptoms assume by degrees a milder character, and a gradual, though slow recovery is generally brought about. In this type, occurring in a scrofulous child, tuberculous peritonitis of a subacute character may sometimes, though rarely, appear, and, as a consequence, effusion of serum into the peritoneal cavity may follow. Now and then, perfectly independent of this, however, I have seen œdema of the lower extremities occur, and in the chronic form I have afterwards to speak of, general anasarca is occasionally observed. A modification of this type, chiefly marked by great irritability of the stomach and persistent vomiting, with pain on pressure over the epigastrium, is now and then met with, as an epidemic, in the height of the summer. It often becomes protracted and induces great emaciation, so much so that I have thought tuberculosis was going on.

Another frequent modification is this: the fever increases as before, but the bowels keep costive, often most obstinately so; the child sleeps more, seems very "heavy in its head;" there may be some vomiting. In older children delirium will appear, in younger convulsions, even at the outset. In fact, such a state of the nervous centres is present that one may be led to believe the so-called "hydrocephalus" exists, that this is *the* disease, and that the fever is symptomatic. But with care this mistake cannot in general happen. It is true that, besides congestion, inflammation and tuberculous meningitis may follow in the course of infantile remittent, but it is rare that they do so, and then the secondary nature of these maladies can be diagnosed. It is just as astonishing here as in the former complications of the intestinal mucous surfaces, what severe, threatening, and alarming symptoms will arise, and how favourably all will terminate. By a little attention being given to the brain, the local symptoms will diminish, the fever decline, and recovery ensue as before. But in a few cases the brain does become so severely and prominently affected as to give rise to great apprehensions, and, if a fatal result should not happen, the patient may be left with some very serious drawback, the result of cerebral disorganization. About a year ago, I attended, with Dr. Power, a little boy, of between five and six years of age, with a severe and prolonged form of acute remittent; cerebral symptoms, attended with deafness, soon came on; vomiting, costiveness, pain of head, knitting of brow, then involuntary action of the bladder and rectum, &c. &c., supervened, and yet me combined with adynamic or typhoid symptoms. The child recovered, with complete loss of the sense of audition, and is at the present moment as deaf as ever. You know that in some eruptive fevers, like scarlatina, the same result is occasionally seen, but here from quite a different cause to that of the deafness of the patient I allude to. In the former, inflammation, suppuration, ulceration, &c., of the external passage, or middle ear, ensue, the organ becomes broken up and destroyed, and hence the sense abolished. But in the latter no such thing occurred: the external passages and middle ear are as sound as they can be, but there has been serious mischief at the base of the brain, or somewhere near the origin of the auditory nerve. Upon the diagnosis of idiopathic brain affection I may refer you to my former lectures, which you will find in the sixteenth volume of the *Medical Times*. In this modification of the fever we do not observe the great and rapid wasting we usually see in the abdominal variety, nor so often the slighter complications I before spoke of, such as the stomatitis, &c. The mouth is more dry, the tongue coated, and the thirst great.

Not only may the catarrhal irritation become severe in remittent fever, but even inflammation of the bronchi and parenchyma of the lungs supervene; and this is the worst complication I think you can have to deal with. In this superaddition to the fever, the paroxysms of the latter are greatly increased, and present those peculiarities in younger children which in my last lecture I dwelt upon. It now and then happens that pneumonia comes on very insidiously; the patient appears to suffer no increase of fever, but which is obstinately prolonged, when suddenly, upon the supervention of an increased exacerbation and difficulty of breathing, the attention is directed to the lungs, which are then discovered to be seriously involved. In other cases the fever runs high from the first, and the signs of the chest complication are early and plain. In these cases the local disorder becomes the most serious thing that we have to manage.

It is then the complications of head, chest, and intestines which usually render the remittent fever precarious, although I must repeat again, simple acute remittent fever is, as a general rule, of the immediate dangers attending it, free from it. Dr. Henry Davies, who says, if correctly stated, remittent infantile remittent fever is rarely fatal, notwithstanding its tedious course and the alarming and insidious symptoms which sometimes arise during its progress; but when any severe complication of the respiratory organs supervenes, the prognosis becomes very difficult. The nature of the complication which arises depends upon several things: upon the season of autumn, early winter, and spring, the respiratory organs are more liable to become the seat of disease; upon the nature also of the epidemic, or independent of the above circumstances, certain epidemics are marked, some by frequent bronchial disorders, some by bad sequelæ; and upon the constitutional tendency of the patient, scrofulous children being liable to the latter affection, and to that of the mucous lining of the digestive canal, as also to cutaneous and hepatic eruptions. The locality in which the child lives, the amount of care bestowed upon it by the parent, and even the treatment adopted, have all considerable influence in altering the course of infantile remittent. There is still another complication I may just notice, which is now and then seen. This is the occurrence of *erythema nodosum*, more particularly in children of from seven to ten years of age. After febrile symptoms have been present for some days, elevated, hard, painful, rose-coloured spots appear on the integuments over the surface of the tibia of one leg; after a few days these die off, and perhaps others will make their appearance on the other leg, or, what is less common, will appear on the forearm, on the forehead, or on the chest. Sometimes they will break out in several places at one time, but this is very unusual, as, also, that they become persistent, and take a long while to disperse. In most cases in which I see this disorder in children, with other writers who speak of it in connection with older patients, I regard it as *sui generis* disease, and the fever as symptomatic; but I have also met with it as a complication of fever which is truly idiopathic, and the disorder is such as I have stated. When it so occurs, the fever is by no means of a severe or acute character, but often protracted, the child in the remissions suffering but very slightly. A few weeks ago I had a patient about ten years of age, in whom the erythema appeared most obstinate, lasting in three weeks, appearing at intervals all over the body, but mostly on the shins, but first one leg was attacked, then another, then the chest, and then the forehead.

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&c., at one place became face, another, was invaded. In most of these cases the digestive tube has been out of order, great costiveness and sometimes sickness being present. I may refer you upon some points connected with this subject, to the lectures of Mr. Startin in the fourteenth volume of the *Medical Times*.

ORIGINAL CONTRIBUTIONS.

THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

By GEORGE CORFE, [Author of "A Popular Treatise on the Kidney," &c., of the Middlesex Hospital.

(Continued from p. 421.)

CLASS IV.

DIVISION I. *Emaciation of frame, Countenance of peculiar hues.*

From malignant disease.
" tubercular do.
" cancer of the stomach.
" uterus.
" rectum.
" mamma.

In treating of those diseases which have been grouped under the above classification, it may be observed that the physiognomy, in an especial manner, is a valuable guide to the detection of these internal disorders. The countenance of a patient, although a fruitful source of information too much neglected by medical men in the present day, nevertheless presents a very peculiar and characteristic token in many diseases, and in the class which is now about to be treated of it affords to the experienced medical physiognomist a most important help to diagnosis.

The great art in this study, however, is to simplify, to abstract, and to separate the principal and fundamental features with which it is of importance to be acquainted; for it is invariably seen that as certainly as effect follows its own cause, whenever a peculiar feature or cast of features is significant, the accessory traits or symptoms of the disease will be so also; for a positively phthisical countenance will announce a tubercular pulmonary excavation as certainly almost as if the morbid parts were displayed before the eye.

It, therefore, it is of the last importance in the treatment of internal diseases, to become acquainted with the seat, the kind, the stage, and the extent of the disease, or, in other words, to be enabled to grasp the entire disease, then most assuredly the general appearance of the patient, the peculiar modification of the disease, the particular combination and mutual influence of the symptoms, give such a general character to the whole system, which may be easily seized, and practically acted upon by the medical physiognomist.

So the clinical student would ensure a successful progress in this most useful branch of medical observation if he accustomed himself to catch promptly, and to impress powerfully upon his mind, the essential traits of the physiognomy of such malady he intends to study.

Now, in the diseases grouped under the first division of this class, the most prominent and characteristic feature is a wan or pallid countenance. There is a tendency in malignant disease, as soon as it is fully established in the constitution, to rob the vascular system of its red particles, and therefore the peculiar change in the colour of the face is the first evidence which we may notice of the existence of such disease.

It is a question in pathology which has not yet received a satisfactory explanation, whether this pallor of the whole system is the cause or the effect of progressive malignant disease. In tubercular softening of the lungs, the wan countenance and emaciated frame are the result of a fatal disease which is ravaging those organs so pre-eminently essential to animal life; and, therefore, the effects are readily understood; but that that pallor should so rapidly ensue in those forms of disease in the uterus, mamma, rectum, &c., where no amount of hemorrhage has previously occurred to rob the circulation of its red blood, is not so easily explained; nor are the same effects of hyperæmia, which we notice in advanced degeneration of the kidney, so easy of solution. It is probable that coexistent with the formation of scirrhus in the mamma, uterus, &c., there may be also some important change in the process of chymification, nutrition, and absorption throughout the alimentary canal.

But, although it is observed that a wan countenance attends the suppuration of pulmonary tubercles, yet there is a wide difference between the pallor and cast of features in this disease, and in that of cancer of the pylorus; and the latter malignant change of structure presents a physiognomical difference from uterine cancer or renal degeneration. Nevertheless, the general aspect is the same, but the shades which each disease respectively exhibits are not more striking to the eye than the symptoms are peculiar to the seat of the disease.

The shining lustre of the cornea and the prominent globe of the eye, which we so constantly witness in consumption, are not seen in uterine cancer, whilst the rapid emaciation of the face, and the dirty, pale, and faint buff-coloured tint of the whole skin, peculiar to the last-mentioned diseases, are not peculiar to incipient renal degeneration; whilst, on the other hand, when the latter disease has advanced to such an extent that the urinary salts are but scantily separated, so that the solid contents of the urine are supplanted by a light, pale, and watery secretion, containing none of the elements of urea, then it is that the puffy cheeks, the œdematous eyelid, the sodden hand, the pinched features, and the expression of general malaria and poison in the system are manifest.

There is something peculiarly characteristic of malignant disease, as well as of advanced granular degeneration of the kidney, in the appearance of the hand. In the first place, the skin of patients labouring under these diseases is scarcely ever clean; the mental faculties are so blunted, and the energies of the mind and body so enfeebled, that they care not to wash themselves after a night of restlessness and pain, and the early appearance of prurigo is not uncommon in such instances. But the hand is peculiarly grimed with dirt(a) and is sallow in colour; the nails are long and dirty also; in short, that form of hand and finger-nails, familiarly known to medical men as the "sot's hand," is especially noticed in the diseases now under consideration.

But an attempt shall be made to give a sketch of the physiognomy of phthisis in its early and most insidious form. This scourge of our race is easily detected when the broad outlines of the disease are portrayed in the emaciated frame, sunken cheeks, glassy eye, and when the trunk of the body, especially the thorax, is bent forwards in the act of walking or in sitting. These advanced symptoms leave no doubt on the mind of the auscultator but that he shall find either bronchophony or pectoriloquy over one or both subclavicular surfaces. It is, however, of far greater importance that he should be enabled to detect this fatal disease when it is undermining the system with slow, yet with steady and gradual steps, and at a period too, when some hope may be entertained that remedial measures are yet available. The physiognomist has here an extraordinary superiority over the careless observer of physical signs. In the first place, let us suppose that we are consulted about the health of a young man who, it is stated, has been ailing for some months, or only a few weeks, with loss of strength and enfeebled mental energies. The first glance at the face stamps an impression upon the mind of the physiognomist that the patient labours under some attenuating disease. The eye is full, clear, and sparkling; the brows are well arched; the forehead is open and wide; the nose rather pointed; the cheeks have either a brilliant tint over them, abruptly shaded off towards the chin, which, together with the lower half of the face, presents a marked pallor to the rosy blush of the upper part, or else there is seen over and beneath the malar prominences a mixture of pale rose-tint with a faint intermixture of waxy-coloured skin. The hand is glanced at; it presents a tapering, well-formed set of fingers; no apparent "ungues adunci" are yet recognised. One has requested the patient to describe his symptoms, and his varied feelings during the short time that the eye rapidly surveys these and various other valued helpmates in diagnostic practice. He converses freely upon his ailments, and he ought to be encouraged so to do, and, when he has carried his mind into the free explanation of his little inconveniences or bodily distresses, he is under less restraint; so that, whilst he is ingenuously telling you the rise, the progress, the variation, and the troubles which have attended his illness, one has time to glance again at the animated eye and face. Now we may observe that the alæ nasi (those faithful monitors of respiratory derangement) are at work whilst he converses. The chest is raised from the abdomen, diaphragm, and short ribs, whilst that natural expansion of the upper half of the thorax is only feebly performed. The clavicles scarcely rise at all. He is requested to unbutton his waistcoat, and allow his chest to be exposed. The clavicles are now observed to stand high, whilst the ribs beneath them are sunken; and this is more appreciable over one subclavicular space than over the other. There is also a general attenuation of the parietes and muscular structure on this side, and the same physical signs which have just been mentioned are more striking when the thorax is naked before the eye of the medical man. Let the stethophonon be applied over this sunken portion of the chest, and the operator's voice falls slightly, the patient feels "a ring" through the chest, but not so on the other, or, if he does, it is far less in degree than on the more flattened side.

Now, all these observations, which have occupied me ten minutes to describe, can be made in a less number of seconds by the mind and the eye of an observant physiognomist. Such instances of incipient pulmonary phthisis are very frequently quite unattended with cough, night sweats, or rapid emaciation; probably the only symptom of a marked character which the patient lays any stress upon is the weakness of his digestion, and the natural supposition that his slight feebleness of body, &c., is the result of inefficient nutrition from the dyspepsia which he labours under.

Such an instance is now before my mind's eye: it is that of a young girl of twenty years of age, who has been nursemaid in a family at Dover. She is now under the treatment of Dr. Seth Thompson in the hospital. This patient has been labouring under severe dyspeptic symptoms for nine months past, and has been leeched, blistered, &c., over the epigastrium for an obstinate form of indigestion, but has never had the chest examined by auscultation before she entered our wards.

The following points were observed on her admission into the Middlesex Hospital:—A sparkling and pleasing eye; a rosy tint over the cheeks, which is uniform and constant; slight hollowness under the malar prominences; some emaciation of body, but especially of the neck, mamma, and pectoral muscles; a capricious appetite, with an almost incessant pain or sinking over the stomach, sometimes aggravated by food, whilst, at others, it is relieved by eating and aggravated by fasting. She ascribes all her ailments, weakness of body, and emaciation to the little amount of food which she takes, and to the uneasiness which she suffers on account of it. There is no cough, nor any night perspirations, nor has she ever suffered from either. She attributes her sickness to a fright which she experienced nine months ago, whilst bathing, with

(a) I particularly refer now to hospital patients.

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the children in her care, when she allowed the rope of the machine to slip out of her hand, and she was under water, unable to get her feet on the ground; when she came ashore she had shivering and was very poorly for several days, but thought that she had got over the fright, until she observed that her strength and her appetite failed her at the same time.

On glancing the eye over the superior part of the chest, it is manifest that the upper three ribs on the right side scarcely rise, and that there is more flattening here than on the corresponding surface of the left subclavicular region. The use of the heautophonon produces a "ring" over this spot which is distinctly felt over the infra spinous fossa of the scapula. There is but feeble respiration here, though no marked bronchophony can be detected. In short, no practical auscultator can doubt but that the following is correct:—"Dyspeptic phthisis, with a series of partially aggregated tubercles dispersed throughout the upper lobe of the right lung." She is improving under the judicious treatment of Dr. Thompson, who has ordered her the trisnitrate of bismuth with aromatic confection, and given her an occasional rubefacient liniment, &c., to the epigastrium, with generous diet and wine, &c.

It is a singular feature in the progress of this form of dyspeptic phthisis that the patient can take with relish the most indigestible ragouts and dishes, pickles, &c. &c., and that too with apparent impunity; whilst on the other hand, if he is requested to partake of a wholesome and nutritious joint of meat, he turns sick at it, and will scarcely touch more than a small portion of the dry and gristly meat of the knuckle of a leg of mutton; but fresh or pickled pork, salmon, veal, &c. &c., are very favourite dishes. This morbid peculiarity in the appetite is very apt to mislead the practitioner also; for he naturally supposes that the disrelish of wholesome food is only symptomatic of enfeebled powers of digestion, and he is, therefore, disposed to encourage the patient's fancies and whims, though he never supposes that the real seat of disease is not in the stomach, and that the attenuation of the body does not spring from any other source than that of deficient nutrition; whereas it is the result of a slow but certain advance which tubercular deposition is making throughout the lungs, so that nutrition on the one hand, and oxygenation on the other, are conjointly undermining the system, and hastening the patient's death.

A lady with whom I was distantly acquainted was labouring under those symptoms of dyspepsia which I have just mentioned, and that too for several months; she would eat almost of any dish, except from a joint, however delicate and tender. When the disorder had been running on uncontrolled for eight or ten months, it was observed by her that she was always set off coughing when the stomach was empty. These additional symptoms increasing induced me to suggest that one of our Middlesex Hospital physicians should be called in, which was accordingly acceded to, and he, suspecting the case to be one of dyspeptic phthisis, auscultated the chest, and found unequivocal evidences of tubercular solidification, when he very properly ordered the lady to leave London as soon as her family arrangements would enable her so to do; but, alas! she had scarcely strength to move from home, or from street to street, and, after much exertion of body, she contrived to quit the metropolis for the seacoast, where she rapidly grew worse; hectic symptoms supervened; the cough was harassing day and night; there was then some purulent expectoration, and in less than a fortnight after her departure from London all human hopes of recovery were fled, and she died shortly afterwards. The most distinct pectoriloquy and amphoric breathing were observed under the right clavicle. Now, in this remarkable instance of phthisis, insidiously developing itself under the mask of dyspepsia, there was no cough except at the periods of fasting, and but slight emaciation until a month before her death; and even these symptoms scarcely met with any notice from her relatives at the time that the physician alluded to was called in, who immediately pronounced the case to be one of irrecoverable and advancing consumption.(a)

This "strumous dyspepsia" of Dr. Todd, or "tuberculous cachexia" of Sir James Clarke, is so ably described by these authors that I need only refer the reader to their respective treatises for any further observations upon this subject.

I will now proceed to the physiognomical outlines of *scirrhus of the stomach*. This viscus is ordinarily attacked with malignant disease at its pyloric extremity only; and when the morbid changes are set up we may notice the faint, sallow cast of colour in the face and skin of the body, a somewhat pinched set of features not expressive of any great suffering, with slight emaciation of the whole frame. On interrogating the patient we usually hear the following statements:—He is more or less distressed with pain at the epigastrium after solid food, which remains for one, two, or four hours, and is then rejected with immediate relief to his sufferings; but there is this peculiarity about the disease, and which is never met with in ordinary dyspepsia, however obstinate in its nature, that not only is the food rejected without any apparent alteration in its character from the process of digestion, but there is mixed with it a quantity of thick, brown, sour, and ropy mucus, which is thrown off from the diseased surface of the mucous follicles of the stomach, and which, after it has stood a few minutes, presents all the appearances of yeast that has become acescent. He further states, perhaps, that he has vomited some dark blood at some period or other, prior to the occurrence of any pain; and he has noticed for some months also that salt beef, fried fish, pork, and veal, together with green vegetables, cooked or raw, have induced more suffering than boiled or roast mutton, or a mealy potato, which is the only kind of food he can take with impunity. In short, his pathological description of the relative digestibility of various meats and vegetables with him exactly corresponds with the physiological account given to us in a tabular form by Sir Astley Cooper. It is not usual to meet with any external tumour in the epigastric region in this disease of the stomach.

The internal exhibition of chloric ether, in five or ten minims three times a day, has afforded great relief in many instances of scirrhus pylori; but the following draught prescribed by Dr. Hawkins in a severe case of this disease, now in the female wards of this hospital, has been followed by the most gratifying results:—

℞. Liq. hydrarg. bichloridi, m. x.; liq. morphiæ hydroclor., m. ij.; ether chlor., m. v.; mist. camp., ℥ss. ter die.

Sometimes the pain has recurred with such aggravation that an additional opiate, consisting of five grains of comp. soap pill has been necessarily resorted to at bedtime.

The physiognomy of *carcinoma uteri* is very similar to that of scirrhus pylori, if we except this, that in the former malignant disease there is more pallor of the countenance, and more distress depicted in the features, than in the latter disease. The subjects of this malady are usually those women who have arrived at the climacteric period of life, and who, mistaking profuse but occasional uterine hemorrhage for that "dodging" of the catamenia which so commonly occurs at this time, neglect themselves, or do not consider the subject of sufficient importance to apply for medical aid or advice until the disease has so far advanced that the early stages of induration and vascularity have given place to those of irreparable ulceration and hemorrhage. This is especially the case with our hospital patients: we constantly meet with instances of females seeking admission into our cancer ward, who not only labour under advanced ulcerating cancer uteri, but who have, nevertheless, received little or no medical assistance prior to their application at the hospital. (a) But this remark does not apply merely to the lower class of females, for the same error in judgment, or delicacy of feeling in making their ailments known to a practitioner, exists amongst the better classes of society. The mother of a medical gentleman, whom I know, was suffering from occasional uterine hemorrhage during many weeks, before she would consent to obtain medical advice; my friend was hastily summoned to visit his mother, who, it was stated, was alarmingly ill. He accordingly went down into Devonshire, but he informed me that the disease had made such progress, and the destruction of the neck of the uterus was so extensive, that little hopes could be entertained of any recovery. The fatal result took place in six weeks from the period that he was first informed of her illness, and only a few months from the onset of the hemorrhage. It has always appeared to me, that whenever we are consulted by a married woman, who has borne but few children, and those have appeared at irregular intervals, so that three, five, or seven years have elapsed between the birth of each, and there have been also one or more miscarriages, that when the climacteric period of life arrives, and the catamenia are profuse and attended with unusual pain; and when, moreover, the countenance assumes a wan appearance, and that the digestive functions are much disturbed, we may be certain that malignant induration of the cervix uteri is progressing, for which, if timely aid is afforded by judicious medical treatment, the patient may receive, probably, many months' relief, and be spared many more of acute suffering and distress. The practice of Dr. Charles West, the physician-accoucheur to this hospital, in this department of medicine is so excellent, and the collected body of evidence of modern writers, both continental and British, is so valuable, in the treatment, pathology, &c., of these diseases, that I can only now refer the obstetric student to his useful "Reports on the Progress of Practical Medicine in the Departments of Midwifery and the Diseases of Women and Children in the Years 1842—1846." (b)

(a) The following form of drops, taken either as an ordinary beverage or as one dose twice or thrice a day, where I have ordered it, has been the means of retarding the rapid progress of heetic in such early stages of phthisis, that I am induced to offer it here:—

℞. Ac. sulp. dil., ac. nitr. dil., aa. ℥ss.; træ. gent. co., træ. aurant. co., aa. ℥ij. ft. guttæ cap. ℥j. ex. cyatho decocti avenæ bis terve die; or the same quantity may be put into a quart of barley-water, or a thin decoction of Carrageen moss, and sipped at during the day.

Naval Appointments. — Acting Assistant-Surgeon: Charles Sproull, to the Victory.—Assistant-Surgeons: W. M'Mahon, to the Dee; Philip Porter, to the Triton; John Elliot, to the Alban; John G. Campbell, confirmed to the Dragon.—James V. Browne, surgeon and agent at sick quarters, Galway.

Obituary. – Suddenly, of an affection of the heart, Dr. M'Manus, of 28, Baker-street, Portman-square.

(a) There are two cancer establishments in this hospital, a peculiarity of the institution not met with elsewhere in the metropolis, and I doubt if it is to be found in any charity besides in the British isles. That for females consists of a noble and airy ward, containing ten beds, a head nurse's sitting-room and bedroom, and a kitchen, with every convenience for the comfort of these poor afflicted women. It was founded by the late Samuel Whitbread, Esq., and is maintained by a separate fund for that purpose. The male establishment consists of seven beds, and was founded by Miss Alithea Stafford. The patients are allowed to remain in the hospital till death terminates their sufferings, unless they wish to be discharged, or are cured by remedial measures.

(b) "Reports on Midwifery," &c. &c., by Charles West, M.D. Printed by C. and J. Adlard, Bartholomew-close.

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CONTRIBUTIONS TO THE MEDICAL TOPOGRAPHY OF THE MEDITERRANEAN.

By WILLIAM THOMPSON KAY, Esq., Assistant-Surgeon of the Plymouth Division of Royal Marines.

"THE GRAND OBJECT OF ALL TRAVELLING IS TO SEE THE SHORES OF THE MEDITERRANEAN: ON THESE SHORES WERE THE FOUR GREAT EMPIRES OF THE WORLD—THE ASSYRIAN, THE PERSIAN, THE GRECIAN, AND THE ROMAN. ALL OUR RELIGION, ALMOST ALL OUR LAWS, ALMOST ALL THAT SETS US ABOVE SAVAGES, HAS COME TO US FROM THE SHORES OF THE MEDITERRANEAN."—*Samuel Johnson.*

SYRIA.—*Its Situation, Name, Extent; Divisions, Ancient and Modern; Physical Characters; Productive Industry; Manufactures; Civil and Social State; Climate; Diseases; State of Medicine and Surgery; Works on the Topography, Natural History, &c., of Syria.*

(Continued from p. 77.)

CIVIL AND SOCIAL STATE.—*The population* of Syria, taken collectively, is, according to the latest authentic accounts, 1,817,000, and is subdivided as follows:—

Mahommedans (exclusive of Bedouins)	860,000
Greeks of the Oriental Church (schismatics)	345,000
Druses	186,000
Jews	175,000
Maronites	104,000
Roman Catholics	98,000
Ansary's	22,000
Metwalis and Zezides	17,000
Armenians	6,000
Franks	4,000
Total	1,817,000

Inhabitants.—The inhabitants of Syria, for the sake of convenience, may be arranged as follows:—

1. *Greeks of the Lower Empire;* being the posterity of the people conquered by the Arabs, comprising α. Greeks proper, or schismatics, being those separated from the Romish communion. β. Latin Greeks, or those reunited to the Romish communion. γ. Maronites, or Greeks of the sect of the Monk Marro or Marroun, formerly a distinct sect, but now united to the Latins.

2. *The Posterity of the Arabian Conquerors.*—α. True descendants of the conquerors. β. Metwalis. γ. Druses. δ. Ansarians. β, γ, δ. Possessing distinct religions.

3. *The Ottoman Turks,* the present ruling people. α. Turkmans. β. Koords. γ. Bedouin Arabs.

They will bear another division, and one which I shall adopt, viz., into *Stationary,* including the Maronites, Metwalis, and Druses; and *Wandering,* comprising the Koords, Zezides, and Bedouin Arabs.

The *Maronites* occupy the country between the Nahr-el-Kelb and Nahr el-Bared, from the mountains on the east to the Mediterranean on the west, embracing the cantons of the Kesrouan and Bsherray.

They derive their name from Marro, or Marroun, a monk who flourished in the fifth century, and established a sect since called after him. The Council of Constantinople condemned them (A.D. 681), as holding the *monothelite* heresy, and drove them from the greater part of the cities of Syria to the mountains of Lebanon and Anti-Lebanon; they adhered to the Latin Church in the year 1182, but were still governed by their own patriarchs. After the crusades their attachment to the Church of Rome diminished, but, by able negotiations, they were won back in the year 1403, and forty-two years afterwards they renewed their recognition of Roman supremacy under Pope Eugenius IV., which they have ever since strictly adhered to.

The *personal appearance of the men* denotes health, great muscular strength, and activity. Their complexion is fairer than that of the Metwali or Druse, approaching more to an olive colour; the hair, eyebrows, and lashes, dark brown or black; and the eye full, black, and lustrous. The general physiognomy is good. They are strictly honourable, and property is held sacred among them. They are hospitable, though not so unlimited as the other tribes, and very bigoted. They are above the average height.

The *personal appearance of the women* is prepossessing. When young they are rather pretty, but are very ugly when old. Their eyes, hair, eyebrows, and lashes are black; the general contour fine, and stature above the average height (five feet three inches).

The *dress of the men* is very gay, their turbans of various forms, and of every colour except the forbidden green. They wear the striped abbas of the Druses, or a short red or blue jacket over a striped vest; a crimson and yellow sash, holding a brace of long-barrelled pistols, the formidable khanjar, and a yataghan slung across the shoulder. If wealthy, they have their dress profusely embroidered with silk or gold cord.

The *dress of the women* consists of an outer pelisse of blue or some other colour, fringed with silk cord, open in front, with sleeves reaching to the elbow; under this is another robe, with sleeves open to the wrist; a shawl round the waist, long and full trousers, and the yellow slippers or naked feet and *kob-kobs* (the wooden pattens). In addition to the above, they wear immense silver carrings, large bell-shaped silver nobs hanging from their plaited hair halfway down the back, and the *tantour.*(a)

They dwell chiefly in the mountain villages, in neatly-built houses of sunburnt bricks, with flat roofs. Their monasteries, which are very numerous in the Kesrouan, amounting to 200, are built in the style of the Florentine villas of the middle ages. They are naturally an agricultural people. The principal and almost sole produce of the land is wheat, barley, and mulberry-trees,(b) the latter furnishing food for their main support—silkworms. Terrace-rows of vineyards, barley, and mulberry-trees descend from the villages to the sea.

The chief *occupation* of the people is husbandry, and, the whole nation being husbandmen, every one cultivates with his own hands the little domain he owns or farms. They rear the silkworm as an article of commerce.

The mountain *salutation* of welcome and friendship consists in throwing the right arm over the shoulder, bringing both faces in contact, and sometimes kissing the cheek.

The *food* of the Maronites is the same as that of other tribes that have no peculiarity of diet, and will be explained hereafter when treating of the food of the Syrians.

The *religion* of this people is decidedly Roman Catholic. They celebrate their mass in Syriac; the communion is administered in both kinds. The host is a small round loaf, unleavened, of the thickness of a finger, and about the size of a pennypiece; on the top is the impression of a seal, which is eaten by the priest, who cuts the remainder into small pieces; these, being soaked in the wine, are given to each person with a spoon. They have some saints of their own; their priests are allowed to marry before ordination; and their patriarch, or chief bishop, called "the Patriarch of Antioch," resides in the Convent of Kanôbîn, on Lebanon.

The *Metwalis* formerly inhabited the Valley of Bekaa, as far Tyre, but they are now scattered over the greater part of Syria.

The word Metwali has been written Metuali, Motouali, and Metawileh.

Towards the sixth century they were masters of Balbek, and, their tribe increasing, extended to the sides of the Anti-Lebanon, round the desert of Bekaa, which they passed at a later date, and mingled with the Druses in that part of the mountain which stretches between Tyre and Sidon. Subsequently they were driven back towards Saphad and the mountains of Galilee by the Druses. They collected again, and in 1760 they took possession of the ruins of Tyre, and with a force of only 500 completely defeated the army of the Druses, composed of 25,000 men. The monster Djezzar Pacha endeavoured to exterminate this tribe, and never ceased to persecute them from 1777 to the period of his death. A series of disputes, skirmishes, and battles took place, much to their disadvantage, until at length they descended into the plain, and settled among the ruins of Heliopolis, and in the valleys of Lebanon towards Tyre, where they have remained peaceably since 1810.

The *personal appearance of the men* is mean; they have none of that noble appearance which marks the Bedauwi or Druse. They are spare, active, deficient in muscle, and not so tall as the other tribes (average height, five feet one inch); the physiognomy is morose and dull when quiet, but excited by injury displays a brutal ferocity. The eye is black, the features high and regular, the beard remarkably bushy, and the teeth white.

The *women* have generally very fine features, large black eyes full of expression and vivacity, luxuriant raven hair, brown complexions, and fine figures. When inclining to corpulency, they are considered more beautiful; for a Metwalf's notion of female beauty is—"Eyes black as the gazelle's, a skin white(a) as milk, and smooth as amber; a mouth like a row of pearls set in coral; and a face full as the moon." They are taller in proportion than the men, averaging five feet, and even five feet one inch.

In point *of costume* the men and women do not differ materially from the other mountain tribes, and for a description of their habitations, manufactures, food, arms, &c., I must refer the reader to the forthcoming papers on the costume, &c., of Syria generally.(b)

The Metwali are followers of the sect of Aly, and their faith is kindred to that of the Mahommedans of Persia; but they are here regarded as heretics.(c)

The *Druses* occupy the southern portion of Lebanon, the western slopes of Anti-Lebanon, and the Djebel Sheikh. There are thirty-seven large towns and villages in Lebanon inhabited solely by Druses, and 211 villages of Druses mingled with Christians. In Anti-Lebanon there are sixty-nine villages belonging exclusively to the Druses.

Ammatur and Bachlin in Lebanon, Hasbeya and Rasheya in Anti-Lebanon, are the Druse

(a) For a description of this ornament I must refer the reader to the article on the Druses.

(b) The *miri,* or land-tax, is estimated by the mule-load of mulberry-leaves, eight or ten trees generally yielding a load.

(a) Although most of the Metwali women have brown complexions, yet there are many beautifully fair. La Boullaye ("Voyages de la Boullaye le Gouz," p. 318) informs us that the Arabian women of the desert are born fair, but that their complexions are spoiled by being continually exposed to the sun. Another traveller remarks ("Voyage fait par Ordre du Roi dans la Palestine," p. 260) that the "Arabian princesses and ladies, whom he was permitted to see, were extremely handsome, beautiful, and fair, because they were always covered from the rays of the sun; but that the common women were very much blackened by the sun. I have frequently seen a Bedauwi woman, whose skin was the colour of mahogany, nursing a young child as fair as an Englishman."

(b) It has been hinted to me that many of these papers, treating so much as they do of subjects unconnected with medicine, would be more suited for other pages than this journal; but it would be impossible to trace hereafter the origin and progress of diseases without having first considered the civil and social state of the people subject to them; and such as may be disposed to question the utility of considering these points are requested to peruse "The Sketch of a Plan for Memoirs on Medical Topography," in Dr. John Kennen's admiral work, "The Medical Topography of the Mediterranean"—one that it will be my study to follow out as far as the subject will allow.

(c) Niebuhr, "Reisebeschr," li., pages 270—426.

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capitals, possessing each a *khalueh*, or sacred edifice, in which their war standards and religious books are deposited.

The *personal appearance of the male Druse* is prepossessing; the physiognomy is noble, grave, and spirited. Though not remarkable for height, they are well made, active, muscular, and hardy; they are brave, haughty, sanguinary, and vindictive by nature, yet conceal much of their true character under an Oriental smile of deceit. They are hospitable, rigidly moral, for their word once passed is as sacred as an oath, and very jealous of their honour.

The *women* are taller than the men in proportion, with fine figures and complexions, luxuriant raven hair, deep blue eyes, and jet-black brows and lashes.

The *dress of the men* does not materially differ from the other male inhabitants of Syria. Their usual dress is a coarse woollen cloak, with white stripes, thrown over a waistcoat, and loose breeches of the same stuff, tied round the waist by a sash; the turban is flat at the top and swells out at the sides.

The *dress of the women* is almost the same as that generally worn: they wear a coarse blue jacket and petticoat, without any stockings, and the head-ornament peculiar to mountaineers called the *tantour*, which projects from the forehead like the horn of the fabled unicorn.

The *tantour* is an ornament used by all the female mountaineers of Lebanon, and is generally the gift of the bridegroom on the occasion of his marriage. It is a hollow tube made of silver, copper, or tin, rudely embossed with stars, flowers, crescents, and other devices. It varies in length from one foot to two feet, and is about six inches in circumference at the lower part, gradually tapering towards the top, where it is less than half that dimension. This strange ornament, placed on a cushion, is securely fixed to the upper part of the forehead by two silk cords, which, after surrounding the head, hang behind, terminating in large tassels capped with silver. This ornament is worn at a different angle and varies in length, according to the district. In some parts it is worn projecting from the forehead like the unicorn's horn, as at Deir-el-Kamr, Bleddin, and Brumâna; in others at an angle of 45° from the left side of the head, as at Deir-el-Khallet and Aare (in the Haouran); sometimes it points backwards, to the right or left, or directly upwards. As it requires much patience and practice to adjust this ornament, it is seldom removed, even by night, often remaining on for months together. The great weight of the tube, with its machinery of cords, chains, and balls, causes the women to suffer severely from headaches, particularly when they first adopt it; many of them complain also of stiff neck, vertigo, and impaired vision, which they attribute to the use of this appendage. Reference is made to this singular ornament in many passages of scripture, thus we find—"I have defiled my *horn* in the dust."(a) "Lift not up your *horn* on high."(b) "Our *horn* shall be exalted."(c) "The *horn* of Moab is cut off."(d) "To cast out the *horns* of the Gentiles, which lifted up their *horn*, &c."(e) "And hath raised up an *horn* of salvation, &c."(f)

The *habitations* are formed of mud, built square, with two apartments on the same floor, the window large and low, and with several (from four to eight) ventilating apertures near the ceiling, each measuring about six inches square. Such are the houses at Deir-el-Kamr, the capital of this people. These houses are ill adapted to the cold and rainy season, which sets in about October or November; and the natives usually cover the roof of the house with a composition made of one part of slacked lime and three of fine sand or earth; this, when mixed with the water in which hides have been immersed for some time, or the washings of a slaughter-house, is said to be impervious to rain.

On the top of every house is a large stone roller, for the purpose of flattening this cement, and at sunrise and set it is daily rolled. During the summer months, when there are no heavy rains, this practice is neglected, and it is then common to observe the housetop covered with weeds.(a) In some parts of the country of the Druses the houses are built entirely of blocks of stone.

The chief *occupation* of this people is weaving: cotton and silk are the staples of their looms. The cotton cloth is for domestic consumption, and is made into shirts, sheets, and drawers; or, when dyed, into robes, gowns, or trousers. The silk is exported by way of Beyrout, and is made into sashes, waistcoats, robes, &c.

They *cultivate* the small patches of ground on the slopes of Lebanon, and by forming terraces prevent the earth from being swept away by the rains. The plains produce corn and grain, the vine, fig, and mulberry; the slopes on the mountain side are covered with millet, corn, and vine-trees; and the upper ranges afford good pasturage.

Their *domestic animals* are horses, oxen, sheep (the true Syrian breed), goats, and the native dog.

The *food* used by this people is much the same as that of the other tribes; indeed, the only difference I ever observed was their extreme fondness for *raw animal food*, particularly the viscera, the women especially indulging in this luxury.

The *religion* of the Druses was founded in the year of the Hegira 386, or A.D. 996, by the Caliph Hakem-Bi-Amr-Allah. They keep their religion a profound secret; though they outwardly observe the same ceremonies as the Mahommedans, they are said to worship a golden calf in secret. Such as may wish to become further acquainted with the religious tenets and practices of this people are referred to "Exposé de la Réligion des Druzes, &c.," par M. S. De Lacy, Paris, 2 tomes, 8vo., 1838; Niebuhr, "Reisebeschr.," ii., p. 428; Volney, "Voyage," Paris, 1787, ii., p. 37; "Burckhardt's Travels," pp. 193—205; Gesenius, "Notes on Burckhardt," pp. 523, 524; Perrier, "La Tyrie sous Mehemet Ali;" "Lamartine's Travels," Chambers' edition, p. 106.

The *amusements* of the Druses are very simple. In the evening they sometimes assemble in the courtyard of the chief of the village, and, seated in a circle, with legs crossed and the constant pipe in hand, listen to a story-teller, or discuss the affairs of the people at large. They have no musical instruments, and do not indulge in the wild Arab songs so frequently heard at the festivals of other tribes.

(a) Job xvi. 15.
(b) Psalms lxxv. 5.
(c) Psalms lxxxix. 17.
(d) Jer. xlviii. 25.
(e) Zech. i. 21.
(f) Luke i. 69.

(a) Psalms, cxxix. 6.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF MEDICINE.

Meeting of March 21.—M. Royer Collard in the Chair.

Election of a Member.—The meeting was exclusively occupied by the election of a member in the section of operative surgery. The ballot-box was twice carried round, and M. Huguier was declared duly elected, having obtained 62 votes; against M. Lallemand, 32; M. Larrey, 5; and M. Risord, 5.

Puerperal Convulsions.—Inhalation of Chloroform.

M. P., aged twenty-two years, was admitted into the Hôpital Saint Louis on the 24th of February, at eight o'clock in the morning. Labour had set in the preceding evening, and the patient had already had convulsions, which had necessitated venesection; before she was brought to hospital her constitution was lymphatic, and her habit stout and full.

When the surgeon arrived, the patient was in a state of convulsion, and completely unconscious; the face was swollen, the lips purple, and froth issued from the mouth; the fit lasted one minute after M. Richet first saw the patient, when, having examined per vaginam, he recognised a presentation of the head, which was gradually descending into the pelvis. The attacks succeeded one another with rapidity; the respiration was hurried, stertorous, and the pulse small, frequent, and irregular.

In the intervals the loss of consciousness was still complete, the teeth were set, the hands firmly closed. Chloroform was exhibited at the beginning of each convulsive fit, the duration of which was materially shortened by the inhalation, although their return was equally frequent during the two hours which followed. At half-past two o'clock, parturition was completed, and a large, well-developed boy brought forth; delivery was immediately accomplished. The patient gradually improved during the following days, and left the hospital on the 5th, with a tendency to mental derangement.—*Revue Médico-Chirurgicale.*

FACULTY OF MEDICINE.

Concours for the Chair of Clinical Surgery.

Tumours of the Skull. A Thesis by M. Chassaignac.

The author, in the first place, examines the tumours constituted by hernia cerebri, and distinguishes them by their pulsations from aneurisms and cephalematoma, and from fungus of the dura mater, by the absence of pain and their coexistence at an early period of life. Accidentally, hernia cerebri, through a wound of the skull. M. Chassaignac thinks that the tumour should be removed if the contusion is sufficient to occasion any apprehension of gangrene. The success of this bold step in some cases may also serve as an argument in favour of those who consider excision the best treatment of congenital encephalocele.

The second chapter is devoted to a consideration of tumours formed by hypertrophy of the various anatomical elements of the skull; and in the third are examined those produced by accumulations of serum: here we find an interesting paragraph on the surgical treatment of chronic hydrocephalus. M. Chassaignac gives the preference to pressure upon the skull, and supports his opinion chiefly upon the cases related in Baumgelmann's memoir on the subject. Puncture he rejects for two reasons; first, it is impossible to be certain that the effusion is not the result of some internal arrest of development, or malformation, by which its reproduction is rendered inevitable; and secondly, because, with chronic hydrocephalus, subjects have been known to live many years, and, therefore, a curative treatment of so dangerous a nature as puncture should not be attempted. If, however, seduced by the cases published by Dr. Vose, Græfe, and Conquest, the surgeon decided upon puncture, the removal of the fluid should be very gradual, as Hofling has advised.

Passing over emphysematous tumours produced by fractures of the frontal sinuses, we come to sanguineous and vascular tumours. In the first place, caput succedaneum, the most superficial of collections of blood, is, according to Professor Dubois, situated between the skin and aponeurosis, and should be treated, as Dr. Santoro of Naples has suggested, with lotions of lime-water rendered more stimulant by the addition of some spirituous drops. When the sanguineous tumour of the infant is beneath the aponeurosis, it is called cephalematoma; it appears three or four days after birth, and is marked by the presence of a hard, circular ridge, formed, according to Professor Dubois, by the effusion of plastic lymph under the periosteum. The treatment should consist (Trousseau) of puncture with a narrow-bladed knife, and pressure. Chassaignac then notices hemorrhage within the substance of the bones of the skull, from which occasionally originate tumours of a malignant nature.

Vascular tumours next occupy the author's attention. Treating of aneurisms, he remarks the general tendency of arteries of the head to participate in the same maladies: thus, aneurism of the occipital and frontal often follows the ap-

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pearance of aneurism of the temporal artery. For the treatment of erectile tumours, M. Chassaignac recommends the ligature of the principal arteries which supply them with blood, and the removal of the tumours.

The author then glances at tumours caused by inflammatory action, and turns to those resulting from the secretion of accidental products. This part of his subject is composed with much care, and it is easy to perceive it is the favourite chapter. The accidental products may be divided into two classes: the homologous, and the heterologous; amongst the first we will name horny tumours, wens, atheroma, steotoma, cysts, gummous syphilitic collections, exostosis, and those curious osteophytæ, described by Rokitansky, Ducrest, and Moreau, within the skulls of women who die of puerperal fever, and are observed in more than one-third of the cases. The heterologous morbid products, tubercle, cancer, and fungus of the dura mater are then successively described.

Under the latter names, authors have hitherto comprised tumours of various origin and of very different nature. As late as 1820 the opinion of Louis, which referred all these growths to disease of the dura mater, prevailed in the profession; but in 1819, Ebermaier denied this origin altogether; and finally, in 1832, Chelius emitted on this subject an opinion which has been generally adopted. These tumours originate not only in the dura mater, but also in the pelliosteum and the bones; hence external and internal fungus, the differential diagnosis of which it is not always easy to establish. As to their nature, M. Chelius admits that they may be formed by cerebriform cancer, colloid, fibro-plastic degeneration, or cerebral tissue. The diagnosis between fungus and other tumours of the skull being rapidly sketched, the author rests with more weight upon the differences which separate external from internal fungus. The enumeration of the following symptomatic characters of fungus of the dura mater, and which are precisely contrary to those observed in fungus of the skull, each will give an idea of the discriminative method employed.

Fungus of the dura mater is a tumour endowed with energetic pulsation, reducible into the skull, surrounded with a bony circle, constituted by the perforated bones, painful only when issuing through this circle, and ceasing to be the seat of suffering when reduced; attended with more or less lesion of the cerebral functions, generally solitary, and as rare of occurrence as external fungus is frequent.

The thesis closes with a retrospect of the diagnosis of tumours of the skull in general, and a table in which their leading characters are synoptically pointed out.

On March 23, M. Langier was elected Professor of Chaldal Surgery.

D. M'Carthy, D.M.P.

Simple and Easy Method of Inducing Premature Labour.—The following case, which is the second, is recorded by M. Van Wageninge, in the "Annales" of the Medico-Chirurgical Society of Bruges. A female, thirty-two years of age, was delivered in her first confinement by the forceps, in consequence of contracted pelvis, and the infant was dead. Upon the left side of the head a depression was observed, occasioned by a deformity of the pelvis. The woman proving in the family way again, an accurate examination of the pelvis was made, which was found to measure within a little of nine centimètres. It was, in consequence, determined to induce labour, between the thirty-sixth and thirty-seventh week, by the administration of pills composed of colocynth, extract of rue, and socotrine aloes. Four pills were given on the 1st of January; on the second they were repeated morning and evening. There was a slight bearing down in the pelvic region accompanied with pain. On the 3rd and 4th the pills were exhibited, twelve in three doses, each day, and produced some evacuations from the bowels. On the 5th the same doses were given. Intermitting pains were felt; there was a mucous secretion in the vagina; the uterus began to descend, and the os was dilated about an inch; a part of the infant could be felt. In the evening there were some febrile symptoms, resulting from an accidental cause. The medicine continued on the 6th, and pains were experienced at the lower part of the abdomen. On the 7th, sixteen pills, in three doses. On the 8th the pulse was about 68. The internal and external orifices continued to dilate. A vaginal examination discovered the movement of the head of the fœtus; moreover, the pains were bearing down. Twelve pills; in the evening eight to be taken without aloes. On the 9th twenty-four pills without aloes. Considerable irritability of the bladder; two stools; fœtus lively; pulse strong; the os continues to dilate; the membranes project; the movements of the limbs of the fœtus could be distinguished. On the 10th, the pills as before; pulse 82; two stools. On the 11th four pills without, and the same number with, aloes; the mucous secretion of the genitals is increased; the uterine neck is lower, and more dilated anteriorly; the movements of the fœtus are energetic. On the 12th, during the night, the pains rapidly succeeded each other, and continued for some time. She continued in this state till half-past five, and then there was an alvine evacuation. In the morning the membranes were projecting, and there could be discovered through them the head and a small moveable extremity. The pills to be discontinued. At noon, the dilatation still going on, the membranes advancing, the pains good, though somewhat abated; at six P.M. the pains increased, and recurred every six or eight minutes. On the 13th the pains abated. After midnight eight pills, with aloes, were given; an hour and a half afterwards the pains increased in length and intensity; at half-past two o'clock the dilatation was considerably increased; restlessness; vomiting of bilious matter, and the membranes spontaneously ruptured; the head advanced through the superior aperture; it could not return again, and it remained in this state more than ten hours. As the pains alternately augmented and diminished, the patient wished to be delivered by instruments, as in the former labour. Towards eight o'clock P.M. four of the ordinary pills were exhibited; three quarters of an hour afterwards the pains were renewed, and became expulsive, so that about half-past ten the head was born. The labour was terminated by hooking hold of the left armpit. The infant was a male, with a very large head. The placenta was taken away easily, and the patient did well afterwards.

Fracture of the Thigh successfully Treated.—Dr. Ezra Michener, of Chester county, Pennsylvania, relates the case of a young man in very delicate health and [illegible] constitution, who sustained a fracture of the upper third of the left femur, and was otherwise considerably injured, by the upsetting of a cart. The bad state of his health, and the condition of the injured limb, unfortunately led his medical adviser to believe that he could not bear the strict confinement usual in such cases; and, consequently, light and insufficient dressings were applied. The constant motion of the fragments which the insecurity of the dressings allowed to take place, and the consequent laceration and irritation of the soft parts from the progressive overlapping of the bones, produced a high degree of irritative fever. This was erroneously attributed to confinement, and became an inducement to relax the dressings still more. The fragments had now overlapped more than two inches. After the lapse of several weeks, the irritation nearly subsided, and union was supposed to have taken place. The dressings were removed, and the patient allowed to rise from his bed. In a very few days the slight exertion which he made produced a rapid increase of pain, soreness, and swelling in the limb; the thigh became crooked, and the foot was drawn more and more upwards. Dr. Michener saw him ten weeks after the accident. He lay upon his back; the thigh was considerably swelled, and very painful to the slightest touch or motion. The pelvic muscles, acting upon the trochanter, had drawn the upper fragment upwards to near a right angle with the pelvis, while the fragments necessarily formed a similar angle with each other. The foot was drawn up full seven inches above its fellow; but the tape measure, following the angulation of the bone, gave a shortening of only two inches, as already mentioned, from the overlapping of the bones. The fractured bone appeared to be surrounded by an enormous spongiform callus of four or five inches diameter. Such a callus may reasonably be expected to form where the fragments are allowed continually to change their position, and to disturb the restorative operations which are in progress around them. The bad health of the patient, his already long confinement, the heat of midsummer, and, still more, the unfortunate state of the limb, presented serious obstacles to a cure. The following means were used:—A counter-extending band was passed round the groin of the right or sound side, and securely fastened to the head-rail of the bedstead. It was placed on the right side, in order to allow the left side of the pelvis to rotate downwards, and thus, in some degree, to relieve the tension of the displacing muscles. An extending band was then put round the ankle, and carried over a pulley in the footboard, and kept tense by a weight. A broad muslin band was then passed round the right hip, one end of which was carried beneath the pelvis, the other across the pubis, and secured to the bed-tail on the left side. A similar band was next carried round the outside of the fractured limb, the ends of which were passed under the right thigh, and over a pulley in the right bed-rail. This band was also kept tense by a variable weight. The first and third bands were mere retainers to prevent the others from displacing the patient. The second was designed to make gradual and constant extension; the intensity of the force to be regulated by circumstances. The fourth was mainly designed to co-operate with, and aid the second in straightening the limb, by directly antagonizing the displacing muscles, with a constant and graduated force; but it was also a prominent intention of this band to compress the too redundant callus, and promote its absorption. These intentions were completely fulfilled. The patient passed a comparatively comfortable night, and on the following day it was found that the limb had been gradually and insensibly brought to its proper position—abating the original two inches in its length. These were the only dressings made use of during the cure. The exuberant callus was rapidly reduced to a proper size and firmness; the pain and irritation soon subsided, and in a few days the bone began to show signs of consolidation. At the end of eight weeks he was allowed to rise from his bed. Under the circumstances which have been related, it was believed inexpedient to attempt a dislodgment of the overlapped bones; he, therefore, got up with a shortened limb, but he now walks with only a slight limp.

Analysis of the Cases of Delirium Tremens admitted into the Bloomingdale Asylum for the Insane.—Dr. Pliny Earle, present physician to the asylum, states in the "American Journal" that the aggregate number of cases of this kind admitted from June 16, 1821, to the 31st Dec., 1844, is 594, of which 511 were males, and 83 females. But this number includes many readmissions of the same individuals. Thus the whole number of persons was 322. The sexes being distinguished, there were 274 males and 48 females, the former exceeding the latter in the proportion of nearly six to one. Of these 322 patients, the countries of nativity of 273, and those of residence at the time of admission of 295, are recorded. It appears that 152, or 55 per cent. of the whole, were born in the state of New York; and 46, or 14 per cent. were natives of other states of the Union. Of foreigners there were 81, which is equal to 30 per cent. Persons labouring under delirium tremens are rarely carried to a great distance for treatment. This

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is rendered inconvenient, and generally impossible, both by the condition of the patient and the duration of the disease. Hence it is not surprising that, of 295 individuals admitted, no less than 276 resided in this state, and a very large proportion of these in the city of New York. Of the 19 whose residence was in other states and in Canada, several were sojourning in this city when attacked with the disorder for the cure of which they were brought to the asylum. Merchants, traders, clerks, professional men, persons of leisure, and young men without employment, furnish 129, or ten more than one-half of the 238 patients here recorded. Without explanation the necessary inference must be far from flattering to these classes. It must be recollected that they constitute no unimportant proportion of the population of the commercial and wealthy city of New York. They are, moreover, those classes, the members of which, more generally than those of other portions of the population, resort to this institution when thus diseased. The great majority of persons whose pecuniary resources are limited are taken to places where the expenses are less. The decennium in which there was the greatest number is that from thirty to forty years; the next is that from twenty to thirty; and the third that from forty to fifty. In the community at large there is a much greater number of persons between twenty and thirty years of age than in any decennium of more advanced life. Hence the proportionate number of these patients between thirty and forty years, as compared with the living population of the corresponding age, is much greater than that in any other period of existence. The number of unmarried men exceeds that of the married by seven; although, if the widowed be included with the latter division, the single predominate over the married by but three. This approximation to equality of numbers in the classes of celibacy and matrimony, though so strikingly remarkable with the men, does not obtain with the women. Of the latter sex the married exceed the unmarried in the proportion of thirty-seven to one; or, if the widowed be included with the married, in the proportion of forty-four to one. As a general rule, delirium tremens soon terminates either in recovery or death. Considering the severity of the disease, it is imminently curable. Thus, of 322 patients, 286 were cured, and but 20 died. The two still remaining in the house are also cured. It is proper to remark, as has already been intimated, that in some of these cases the patient had no delirium while at the asylum. Among them were a few in each of the various conditions and phases, both temporary and more prolonged, of intoxication. In 12 of these 20 cases the patient died within four days from the time of his reception into the asylum, and all of them, excepting one, within twenty-seven days. The man who remained one month and twenty-two days died of congestive fever. The death of the man who died on the ninth day was the result of an attempt at suicide, by cutting his throat, before admission. This was also the case with one of the men who died on the fourth day. One of the men committed suicide while in the asylum. Of the 322 persons before mentioned, 85 males and 17 females, a total of 102, were admitted a second time. 42 males and 7 females, making an aggregate of 49, were each admitted a third time. Of the fourth admissions there are 33, of whom 29 are males and 4 females. 23 were received a fifth time each; of these 20 were males, and 3 females. The sixth admissions consist of 14 males and 2 females: total, 16. Eight males and 2 females were each admitted a seventh time. No female was received more than seven times. The admissions of a higher number were exclusively of males. One man was received 12 times more, and discharged cured seven times, relieved five times. His last discharge was about twelve years since, and during the interval between that time and the present his habits have been strictly temperate, and his mental condition perfectly healthy. The treatment formerly pursued at this institution may be inferred from the following synopsis of the prescriptions for ten patients, admitted at different periods, from 1821 to 1844: —1. Tartar emetic, Epsom salts, and the warm bath. 2. Epsom salts and tartar emetic. 3. Laudanum. 4. Opium and hellebore. 5. Opium, hellebore, and serpentaria. 6. Laudanum, tincture of hellebore, infusion of chamomile and valerian. 7. Calomel, senna, and the infusion of valerian. 8. Camphor, opium, and wine. 9. Calomel, opium, camphor, infusion of chamomile and valerian. 10. Calomel, Dover's powder, and castor oil.

Spasmodic Stricture.—Dr. James Bryan, formerly professor of surgery in Castleton, Vermont, &c. &c., remarks that this is a simple closure of a portion of the urethral canal, by the contraction of some of the muscular fibres which surround it. This spasm may be in the circular fibres of the urethra itself; the compressores urinæ, or other portions of the muscular tissue, acting upon the passage. It is induced by some irritation, either local or general, either in the urethra itself, or acting upon some distant part, and producing the disease by sympathy. Like other diseases of this nature, it is found most frequently in persons of a nervous and excitable temperament. The irritation of gonorrhœa, in any or all of its stages, produces this form of stricture; it is not of course in this, or in purely sympathetic cases, dependent upon organic changes, in the form of deposits, for its existence. Although very distressing for the time being, producing for hours together complete suppression of the urinary discharge, yet it must be considered as a temporary disease. The application of cold water to the parts and cold to the feet, as recommended by Dr. Hall—or the reverse, warm baths, pediluvia and semicupia—are means which very frequently succeed in relaxing the stricture. In addition to these, the introduction of a catheter or sound, the use of opiate enemata, or, according to Dr. Hunter, "the crumb part of a new baked loaf, warm from the oven, applied to the perineum;" a blister to the groin; hot steam to the scrotum and perineum, &c. &c. Of all these, the best by far, and most certain as well as the most expeditious, is the introduction of the catheter, previously warmed and oiled for the purpose. I have found it advantageous, in cold weather, either to allow the patient to remain in bed, or be in a warm room during the introduction of this instrument. In some cases the disease assumes the character of periodicity, and the bladder must be evacuated at stated periods for several days, before the disease gives way, and this entirely independent of that form of stricture which sometimes takes place during the cold stage of an intermittent fever. When caused by some local irritation, the final cure of the disease must of course be sought by the removal of the cause.

THE MEDICAL TIMES.

SATURDAY, APRIL 1, 1848.

PARLIAMENT AND MEDICAL REFORM.

From more quarters than one we hear a great deal of very unwise tremor about Medical Reform; and our weekly contemporaries, whose information, if not good sense, ought to be better, are *here* as unsafe authorities as others. The "best possible instructors" and worst possibly informed are on this cardinal point equally at fault.

In the first place, it is not rationally to be anticipated that Parliament will this session encumber themselves with the medical question. Men talk, idlers write, and busy corporations arrange, but these well-used agencies have been in operation the last twenty years, with just as much, or little, potency as they are likely to be in the present—that is, with the effect on imperial legislation of a child's caul in averting shipwreck, or Ethiopian clamours in ending an eclipse. It is not in a hurricane that sailors scour decks, or in mid-battle that soldiers are lectured on pipe-clay applications; and if anybody expects Government to bring in a medical bill in the present deluge of European revolution, by which even Britain herself—the ark and refuge of expiring monarchies, clean and unclean—threatens to be sooner or later submerged, he has formed a different view of the present crisis from us, and, we may modestly add, the Government of the country. Internally and externally, we are at the most eventful and critical moment of our country's history; and for Sir George Grey to dedicate himself to the difficulties of medical legislation would be to show a coolness amid dangers which a greater man might well envy, without aspiring, however, to imitate. It would be Guizot calmly discussing his Bank Charter within ear-shot of the musketry that is discrowning his master, and for ever disgracing himself.

THE PRESENT VALUE OF THE APOTHECARIES' PENAL CLAUSE.

When the Apothecaries' Company became a licensing medical corporation in the year 1815, it had certain powers intrusted to it which, discreetly exercised, might have been of no small benefit to the profession. We allude to that part of the act which relates to the prosecution and punishment of illegal practitioners. It is very likely that, at the time when it was passed, neither the Legislature nor the Company thought to benefit the profession by the introduction of a penal clause, it being highly probable that it was intended principally for the advantage of the corporation, by forcing numbers of the students to apply for the certificate. The Company felt that, without possessing the means of punishing those who practised without its authority, the court of examiners would be an institution without employment, and there would be scarcely enough candidates for the certificate to pay the expense of engraving it.

The name of apothecary possessed no attraction for aspiring youth. Shakspere, centuries ago, eternally associated it with "meager looks, tattered weeds, sharp misery, and a beggarly account of empty boxes." At the Hall, too, there was a shop of drugs and chemicals "where physicians' prescriptions were accurately prepared;" and the damning fact was duly advertised on all the bottles and pill-boxes which were issued from the repertorium. The Company, with the craft of old traders, emblazoned on every label its crest of a mailed pig with a nasal tusk; and, lest any mistake should arise in reference to the establishment where the prescription was compounded, there was written in plain English under the aforesaid crest, "from Apothecaries' Hall." For students of a learned profession, therefore, to be expected to go to the hall of a trading company to obtain a testimonial of fitness to practise the art and science of medicine, was a circumstance so singular that nothing short of a penalty for disobedience would induce submission.

If we look to the past conduct of the Society, we cannot avoid making the conclusion that for some years it was disposed to employ the penal clause for no other purpose than its own aggrandizement. We know of many instances of educated medical men possessing a British diploma, who were threatened with prosecution unless they presented themselves in Waterlane for examination, while quacks and uneducated pretenders to medical knowledge were

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permitted to exercise their unholy vocation undisturbed, simply, we suppose, because a prosecution would have resulted in no pecuniary advantage to the Company.

Within the last few years, however, the doctrine has been propounded, and commonly believed, that the penal clause was not intended for the benefit of the corporation, but of the profession, and that it ought to be employed for no other purpose than that of ridding the community of uneducated practitioners. Even the Apothecaries' Company itself has professedly espoused this opinion, and it has, in consequence, refused to prosecute any medical gentleman who possesses a diploma, though he may be minus the certificate. It is to the credit of the licentiates that they bring no charges against the Society on this score. What they complain of is that, after complying with certain expensive regulations to fit themselves for examination—after having undergone that ordeal, and received authority to practise—they have to compete with persons who usurp their functions, without having expended either time or money to obtain a suitable education, tested by examination. The Company has been made acquainted with many cases, and urged to prosecute; but, prior to the new interpretation put upon the penal clause, it pleaded as an excuse the great expenses that must be incurred, and the inability to meet them. Since then, as offenders can now to be proceeded against for a misdemeanour, the licentiates themselves have been urged to take the matter in their own hands—the Society promising to play second fiddle, by affording advice through its solicitor. It is now charged with a breach of promise in this respect, and we have a letter before us from Mr. Alfred Ebsworth, of Bulwell, Notts, in which he complains of having been led to prosecute an illegal practitioner in his neighbourhood, not possessing any diploma, under the promise of receiving from the Company the advice which it engaged to give. Mr. Ebsworth, after adverting to the announcement made by the Society some months ago, that individual members of the profession may become prosecutors of illegal practitioners, and that the cost of such prosecution is comparatively slight, says—"Enamoured by this decision, not privately, but broadly and openly expressed, I commenced collecting evidence against the person whom I was anxious to prosecute for his barefaced and open violation of the law. The evidence I collected was complete: it proved the attendance, the supply of medicine, the strictly medical nature of the disease, and the payment for medical attendance. When the mass of evidence was complete, I placed it in a solicitor's hands to indict the party at the Nottingham assizes. My solicitor placed himself in communication with the adviser of the Company. Several letters passed between them, and the case was pronounced perfect. But when my solicitor came to make arrangements for the *presence* of their *clerk* at the assizes, to prove that the offender had *no diploma* for practising medicine from the Apothecaries' Company, their solicitor *suddenly dropped* the correspondence. But I did not drop the matter here. That the Society, after putting me to the expense already incurred, should fail, I never would believe, and I had no intention that they should. I, therefore, directed my solicitor to proceed to London, and have a personal interview with Mr. Upton; he did so, and, sad to relate, I was declared to be *beyond* the pale of their protecting influence. In vain did he argue the merits of the case; in vain did he solicit, as the evidence was so complete, the attendance of their clerk to sustain the indictment in its most essential point! Mr. Upton declared the Society *incapable of extending its protecting influence beyond the London district*, and even within it, he said, their prosecutions could hardly be maintained for want of funds."

If it is come to this, the question may be fairly asked—Of what use is the Apothecaries' Society to the profession? The reply may be made, that it has done much in the cause of medical education. We grant this; but if uneducated practitioners are to be allowed, unmolested, to practise, medical men are incurring an expense in obtaining the knowledge they do, which the people do not properly appreciate, and the full benefits of which, from their own ignorance or prejudice, they will not be permitted to enjoy.

The Company makes but one excuse for refusing to protect its licentiates—poverty. It has been reiterated again and again, and we must say that we think it but due to those who have paid their money for the certificate to have a statement laid before them of the way in which it has been expended. According to a rough calculation, a sum nearly amounting to £60,000 has been received by the Company since the year 1815 for certificates, and yet, alas! the coffers are so low that the solicitor's expenses to Nottingham and back cannot be incurred to aid a licentiate in prosecuting a quack.

It is evident, from what is continually occurring, that the penal clause, of which so much has been said, is little better at the present time than a dead letter. Druggists not only practise over the counter, but visit patients without fear of molestation; quacks abound in every corner of the land; and individuals boldly assume the name and functions of medical men without the shadow of a qualification. If general practitioners are to advance in respectability and usefulness, a remedy for these evils must be speedily applied. They have been too long left to battle with their adversaries unaided and uncared for, and the consequence is that now they receive the announcement of the "settlement of the question of Medical Reform" silently and distrustfully. Yet hope should revive in the prospect of a new incorporation based upon liberal principles. It may not, perhaps, be all that is asked or required, yet it cannot fail to afford a vantage-ground from which important benefits may hereafter be secured. It will at least make the general practitioners, as a body, a reality; it will place the management of their affairs in their own hands; it will make the College in Lincoln's-inn-fields more circumspect; and it will eventually gather sufficient strength to emancipate itself from any trammels which its enemies may place about it. The Apothecaries' Company may yet do good service for the profession by seeing justice done to its licentiates, and insisting upon a new incorporation in accordance with the spirit of the times. Under these circumstances past omissions will be forgiven.

DR. STOKES ON MESMERISM.

[To the Editor of the Medical Times.]

SIR,—The character of Dr. Stokes, of Dublin, stands so high as an accomplished, talented, and scientific physician, that whatever emanates from him is sure to command attention and respect, both from the profession and the public. In *Saunders's News Letter and Daily Advertiser* for the 9th current, there is an elaborate report of a paper read by Dr. Stokes, the previous Monday, at the reunion at College Hall, in Sir Patrick Dun's Hospital, "On the Light which the Study of Nervous Diseases throws upon Mesmerism." From this report I beg to extract a few of the doctor's remarks on this curious topic, which, I doubt not, may prove highly interesting to the readers of the *Medical Times*.

Dr. Stokes remarks, "I need not remind my professional hearers that nervous diseases are divisible into two classes. In the one there is an organic change, a mechanical alteration of some portion of the brain or nerves, which can be connected with the symptoms in the relation of cause and effect. In the second and by far the most extraordinary and numerous class of these diseases there is no organic change, so that neither by anatomy, the microscope, nor chemical analysis, can any alteration be discovered. The most terrible and incurable diseases are those unconnected with physical alterations; and in such cases, when these do occur, they are inconstant and wholly incompetent to explain the symptoms."

He farther observes, "When men speak of the truth of mesmerism it is not easy to ascertain what they mean. Some believe in the original doctrine of Mesmer, that a fluid of exquisite subtlety can be transmitted from one being to another, so as to produce varied and singular effects; others, that the magnetism can produce results which, if not supernatural, can be caused in no other way; while a third class have a semi-belief in the whole matter, and, to use a common expression, 'think there must be something in it.'" The doctor farther adds, "I do not think that anything I have to say on this matter will satisfy all my hearers. I can only give my own impressions, and what seems to be the opinion of the best medical investigators on the subject. Let us suppose," he continues, "a person incapable of voluntary deceit to be mesmerised; the following conditions may be produced:—

"1. Somnambulism and mesmeric sleep.
"2. Muscular rigidity, or catalepsy.
"3. Local insensibility to pain.
"4. Exaltation of sensibility.
"5. Belief in clairvoyance.
"6. The belief in the faculty of reading the thoughts of others.
"7. The development of new intellectual powers.

"These results, however, are divisible into two great classes: the bodily and manifest conditions, under which we may class the exaltations of intelligence; and the hallucinative class, or the sensorial or mental aberrations of the patients. The occurrence of these false or hallucinative phenomena are symptoms of this peculiar condition, this pathologic state of the brain. The patient is not necessarily a deceiver who affirms that he can see what cannot be seen, who attempts to prophesy or divine the thoughts of others. He believes that he can do so. These are the mental symptoms of this state as constantly as the occurrence of the suicidal propensity in particular cases of mania, or the visions of crowds of loathsome animals in delirium tremens, or the belief in heavenly inspiration in theomania, or of diabolic possession in demonopathy. That somnambulism, with its attendant phenomena, can be produced by the mesmerist must be fully admitted. Why they are produced, or how so simple a proceeding should cause such strange effects and such constancy of symptoms, are questions which we cannot at present solve; but this difficulty should not invest them with a special wonder. We know not why opium causes sleep; or strychnia spasms; or digitalis fainting; or chloroform insensibility to pain.

"Every practical physician," Dr. Stokes further adds, "knows that these mesmeric conditions occur as symptoms of disease in persons who have never been mesmerised. Somnambulism, muscular rigidity, ecstasy, insensibility to pain, augmented sensibility, development of intellectual power, occur in isolated cases of disease, with precisely the characters that are seen in the mesmerised patient. But, further, hallucination, the desire for sympathy, and the tendency to feign, occur as symptoms in ordinary disease. All these have been observed from an early period in medicine. Another class of facts must be noticed, namely, the occurrence of every one of the mesmeric phenomena in an epidemic form." The doctor then recounts these epidemics as they appeared in the middle ages, extending over a period of three hundred years. "The most important of these conditions," he observes, "were theomania and demonomania. They were clearly varieties of the same condition, but presented a singular constancy, not only in the bodily but in the mental symptoms, and hallucinations of sense; so that the statements of the sufferers themselves, and the description of their visions, exhibit the closest similarity for more than two centuries, in different

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countries and different races, in all ranks and all ages, from childhood upwards. In the smaller class the leading delusion was the belief in heavenly inspiration; while, in the larger, body, soul, mind, and will were held by the sufferers to be under the control of Satan or his demons. The belief in witchcraft was universal, and the disease continued for more than two centuries unchecked by the most sanguinary laws. If we now follow the disease into the seventeenth century we find it a compound of mania, demonopathy, hysteria, and neuralgia; convulsions and spasms, producing the most fearful contortions, were common; the feelings and habits of the patients were utterly perverted, &c. The disease occurred in paroxysms, but was uniformly brought on by the attempts at exorcism. The magnetic phenomena existed in almost all cases. Somnambulism occurring in long fits, and varying in its phenomena with the condition and character of the individual, was common, and was also producible at the command of the exorcist; and the double fact of the prophesying by one somnambulist of an access of disease in another, and its occurrence at the specified time, was not infrequent. At the command of the exorcist the body was bent and twisted into the most complicated and seemingly impossible attitudes; the pulse was arrested at the wrist, and respiration appeared to be suspended; the eyes were made to stare without winking, or to roll up so as to conceal the cornea from sight. Insensibility to pain was produced, so that needles could be inserted into different parts of the body, and even into the quick of the nail, without the slightest appearance of suffering. In numerous cases the will of the exorcist was obeyed without his giving any sign perceptible to the bystanders, or was followed even when the patient at the time was at a great distance from him. The patients had fits of ecstasy, and the retrospective, prospective, and inner vision in the highest degree. Their intelligence was exalted; they improvised with extraordinary eloquence and power, and frequently answered in language supposed to be unknown to them." He then adds, "I beg to call your attention to the fact that this condition of the nervous system was communicable from one patient to another, just as we see hysterical disease spread through the wards of an hospital; but the application of the fact to the doctrines of mesmerism is important, as it seems inconsistent with the polar theory: for if, to produce the mesmeric state, a communication between the magnetism and magnetiser be necessary, how did it happen that the magnetised person could produce the same polar condition in another? The fact is in accordance with the ordinary phenomena of sympathy, but appears opposed to the magnetic hypothesis. The conditions which we now see produced by the mesmerist were, then, of a spontaneous growth; for the analogy which has been drawn between the magnetiser of the present day and the exorcist of the sixteenth and seventeenth centuries fails in this, that no will was exercised by the exorcist to produce the original magnetic state. If will was exerted, it was to remove the state; and, though the supposed demon obeyed the command in many striking instances, yet neither the wish nor the will of the exorcist could remove the general condition, though many laboured at the attempt, even to the destruction of their own breath and loss of their lives. It is here," the doctor further adds, "that on the subject of mesmerism we should separate the true from the false. Mesmerism is capable of causing somnambulism without any collusion between the operator and patient. In this state, as in natural somnambulism, those senses are active which are for the time subservient to the particular direction of the dreaming mind; they are not only active but may be morbidly excited; the others are paralysed. Mesmerism can produce a cataleptic state—it can suspend pain; paralyse a limb; contract or dilate a pupil, and induce the state of ecstasy. In this state certain senses may become endowed with increased power, and the intelligence be excited. The patient may act in concert with the mesmeriser, and the head follow the motions of his hand without deceit or collusion. Such are the real phenomena of this state of disease induced by mesmeric operation; these are the true phenomena, where there is no deceit or collusion, no self-deception.

"But there is another class, true in one sense, false in another: true, that they are unquestionably produced; false, inasmuch as they are hallucinative; and in the constancy of the occurrence of these phenomena we see a remarkable accordance with other mental diseases. The patient is not necessarily a deceiver, but is deceived by disease; and the lights and the glories, the inner, the retrospective, and the prospective visions, the prophetic spirit and universal knowledge, are but the regularly established symptoms of a special condition of an outraged and suffering brain. But there is an error in this matter which we cannot pass over here, namely, the doctrine of a special influence, a magnetic fluid capable of being conveyed from one person to another; to say nothing of its being communicable to inanimate substances. Of this doctrine there does not appear to be any proof; and when we see the mesmerised state produced without mesmerism, as when caused by steadily gazing on a fixed inanimate object, such as a dark spot on a white wall; or, as in the case of a bird, round which we draw a line of chalk; to say nothing of the evidence from the history of disease, we find neither the necessity for such a doctrine nor reason for believing it."

Again, the doctor proceeds to another branch of the subject, thus:—"I will not discuss the question of seeing things far removed from the patient, or seeing through opaque objects, or foretelling events. But very few unexceptionable experiments have been made on these points; and chance, coincidence of events, and the operation of the love of the marvellous, seem to be the foundation of most of the singular accounts given to us on these points. They are no more to be relied on than the accounts of the same circumstances in the history of epidemics of diabolic possession."

It must be obvious to many of your readers, who have read my various communications to your valuable periodical, and more especially to those who have also read my treatise on "Hypnotism, or Nervous Sleep," that in these remarks of Dr. Stokes he is re-echoing and confirming, by the sanction of his name, the views which I have so strenuously contended for during the last seven years, as to the nature, cause, and extent of mesmeric phenomena, and which I have contended for in opposition to the whole body of the mesmerists, as well as anti-mesmerists—the latter, because they did not clearly comprehend wherein my views and pretensions differed from those of the mesmerists; and the former, who could not patiently tolerate any remarks tending to refute their mystical and extravagant notions about a special occult influence, and supernatural gifts and graces of their patients, as the results of their alleged magnetic fluid.

I shall reserve for another week Dr. Stokes's remarks on the use of mesmerism in the cure of disease, to which I shall append a few of my own practical remarks on this most important branch of the subject.

I remain, Sir, your most obedient servant,
JAMES BRAID, M.R.C.S. Edinburgh, &c.
6, St. Peter's-square, Manchester, Feb. 24.

COLLEGE CHARTERS AND THE PROFESSION.

"The hour is come, but not the man."
Guy Mannering.

[To the Editor of the Medical Times.]

SIR,—When I wrote my last letter I had not seen the proposed new charter of the College of Physicians, and I must, therefore, correct my mistake of asserting that the physician of the new register would not be disabled from practising pharmacy. What is to become of the many who do practise it we are not told. They are not, like the members of the College of Surgeons, "required" by any clause that I have seen to enrol themselves in the inferior College of General Practitioners, and will not be very likely to do so of their own accord. Those who have not private means may, I suppose, enlist as soldiers, or take to the wine trade. But this is their business, and no doubt they will look to it. My concern at present is with another part of the affair.

The member of the College of Surgeons must either join the inferior college, or give up his drugs. The fellow stands alone in possession of the exalted privilege of being at one and the same time a superior-grade man and a shopkeeper!

When these dignified personages first blossomed into life, we were told in a memorable "statement" that, whereas "the great majority of members of this college are less engaged in the practice of surgery than in that of medicine, midwifery, and pharmacy, the council, keeping in view the objects for which the college was especially established, felt it their duty, in the nomination of fellows, to regard chiefly the qualifications of members as practitioners in surgery." Now, had this principle been acted up to, there might have been some colour for a proposal to make distinctive practice a ground of distinctive registration; but when it is notorious that (as I have elsewhere expressed it) "the actual list of fellows consists of a medley of persons with every variety of qualification—physicians, surgeons, dentists, men-midwives, and apothecaries"—this attempt to degrade the members for practising pharmacy is, I must say, one of the most impudent things I have ever seen.

The fact is—however disagreeable to some persons it may be to be told so—the charter of 1843 is the real impediment to medical legislation, and until this measure is entirely and unreservedly abrogated it will be utterly impossible to advance a single step. In the meantime, as one of the surgeons of England—a body constituting a very considerable majority of the practitioners in the kingdom—I do most solemnly protest against the notion of being represented at any "conferences" by two or three London apothecaries who have either been bought over to the interests of their masters by honours to which they have no sort of title, or are not unwilling to sell the *status* of their fellow-members for a little secondrate importance that may accrue to themselves.

Sir, if this is the way in which medical legislation is to be carried on, my mind is made up as to the course I shall adopt, and I earnestly recommend the same to my 5000 brother members of the College of Surgeons. Until the distinction created by the charter of 1843 is abolished I will not register at all. I will be an illegal practitioner. I have been more than twenty years in the profession, and am in the enjoyment of a very respectable share of public confidence. I could desire nothing better than a prosecution for practising illegally; it would only have the effect of doubling my income; and, in law, such prosecutions would, I think, put the whole Parliament doctors in rather a ridiculous position.

Surely these charter-mongering gentry require to be reminded that we are living in the nineteenth century.

I am, Sir, your obedient servant,
March 27. ECHO VERITATIS.

LIFE-INSURANCE SOCIETIES AND MEDICAL MEN'S FEES.

[To the Editor of the Medical Times.]

SIR,—As the question is still undetermined who should pay the fee due to the medical man who answers the usual series of printed questions relative to the health of his patients, so often addressed to him by life-insurance companies, I hope you will give insertion in your journal to the following case and suggestion.

I received a few days ago from one of my patients a paper with the usual series of printed questions relative to his health, habits, &c. This form had been furnished to him by the General Life-insurance Company; but, unlike the usual custom, the questions were not addressed to me by the company's secretary, and referring to the party proposing to insure in the third person, but were in the first person, and signed by the party himself—as, for example, "Am I subject to fits?" "Have I ever been affected with spitting of blood?" &c. &c.

A request was subjoined that I would transmit the paper by the post-office, with the questions answered and signed by me, a direction being printed on the paper to "Dr. Thomas Price, General Insurance Company's office, King William-street, London."

I cannot tell who this Dr. Thomas Price may be. There is no such name in the last edition of "The Court Guide," nor of "The Medical Directory."

I trust that medical men will not allow the artful dodge adopted by the General Life-insurance Company of procuring evidence intended for their information and security from private medical practitioners, to deprive the latter of the fee justly due to them on such occasions.

With the view of simplifying the question at issue, as to who ought to pay the fee, I would suggest that insurance societies ought to satisfy themselves, as far as possible, by having parties proposing to insure examined by the company's own medical advisers; and, if that be not sufficient, then let them apply to the private medical adviser of the individual. It would thus be indubitably clear that this opinion is sought by the company for their own security, and, of course, that they ought to pay the fee.

At all events, let the company and their customer or client settle the question between them as to who is to pay, but do not let the medical profession surrender their just right to please either.

I am, Sir, your most obedient servant,
JOHN ALLAN, Surgeon R.N.
Epsom, March 28.

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MEDICAL REFORM.

[To the Editor of the Medical Times.]

Sir,—It appears from the tenor of the letter of your correspondent, "Echo Veritatis," that the opposition to the arrangement of medical reform, made by the heads of the medical corporations of London and the National Institute, is to spring from the M.R.C.S., and no doubt the honourable members for Finsbury at their head.

I consider that it comes with a bad grace from that class who have so long been propped up by this title at the expense of the apothecary. Your correspondent would gladly have his class legalised to act in the capacity of general practitioners, but considers it a degradation to enter into a college bearing such a title. If such vain sentiments as these are to be entertained by persons who profess a liberal and honourable calling, I say, away with such hypocrisy, and the sooner we are quit of this deceitfulness out of our ranks the better.

If any one has cause for complaint it is the apothecary, as there is no provision made in the arrangement that he shall be legalised to use the title of surgeon. If he concede to the M.R.C.S. the right of practising as a general practitioner, it is but likely that the apothecary will, in return, demand the same right; and justice proclaims that he must have it.

It is altogether a vain manner of reasoning on the part of your correspondent "Echo Veritatis," to try to prejudice his class, by making it appear that the M.R.C.S. is lowering his dignity by entering into the new college. The community are beginning to open their eyes, and soon they will be determined to have doctors, and not titles alone.

The College of General Practitioners will in a very few years produce a great revolution in the social position of our class. Let every one apply his shoulders to the wheel, and soon will this institution become the admiration of the world. For Heaven's sake let us avoid those professional dissensions and squabbles by which the medical profession, instead of being one of the most influential, has become the butt and ridicule of every class, and the most impotent in society.

It is only a very short time since I entered into the arena of medico-political discussion, but it was not voluntarily; I consented to do so from a real desire to see the long-agitated question of medical reform settled upon a broad, liberal, and honourable basis, so as to secure with the public good the future peace and contentment of our profession. As soon as this great object is attained I shall be most happy to retire into a private position again.

I have the honour to be, Sir,

Your obedient servant,

HONOR ET JUSTITIA, M.R.C.S. and L.A.C.

March 27.

POOR-LAW REFORM.

[To the Editor of the Medical Times.]

Sir,—In order to ensure success in our endeavours to obtain reform in the present state of poor-law medical relief, it is absolutely necessary that a defined and efficient course of action should be pointed out in the first instance. The following appears to me the best way of setting about the work, in order to bring it to a satisfactory termination. Let the committee procure some active member of the House of Commons to move for a return of the number of cases attended by each medical officer in the kingdom, together with the amount of their salaries, for the last three or five years. By this means sufficient information will be obtained to enable the commissioners to see the unequal rate of remuneration of the medical officers. It will be seen that it varies from 6d. to 6s. or 7s., perhaps 10s., per case. At least the inequality will be found very striking. This done, let the commissioners fix a salary for each district, based on the average number of annual cases. This, I think, should not be less than 5d. per case. The friendly societies of "Odd Fellows," "Druids," &c. &c., pay their medical officers on an average at the rate of 5s. for each sick or not, for the year; so that 5s. per case, for attendance, journeys, medicine, &c. &c., for every pauper case cannot be considered by any right-thinking man exorbitant or unreasonable. The "extras," I think, work well as they are; indeed, I think they cannot be altered for the better. The next thing is to make the appointments permanent. This I am fully convinced would be beneficial for the poor, as it would enable the medical officer to order nutritive support without any fear of incurring the displeasure of the guardians. Beside, the fact of their being annually advertised is an insult to the medical officer, and lowers him in public estimation, as it is a declaration on the part of the guardians of dissatisfaction and want of confidence in the medical officer. How any man can reasonably object to their being permanent I am at a loss to know, for their being so cannot possibly protect the medical officer should he be found incompetent or guilty of neglect of duty. Then, and not till then, let him be dismissed without hesitation by the commissioners.

With many thanks for your able advocacy of our interests, I am, &c.,

A POOR-LAW DOCTOR.

Leicester, March 27.

GOSSIP OF THE WEEK.

APOTHECARIES' HALL.—Gentlemen admitted members on Thursday, March 23:—Charles Sharp Smith, Fulbreck Grantham, Lincolnshire; Thomas Knox Kelly, Liverpool; Christopher Irving, West Burton, Yorkshire.

GENERAL LYING-IN HOSPITAL, YORK-ROAD.—At a meeting of the governors of this institution, the Earl of Shaftesbury was elected president, in the room of the late Duke of Northumberland.

REGULATIONS IN THE INDIANA MEDICAL COLLEGE.—By the by-laws of this institution, candidates, after having passed a satisfactory examination, are required to publicly assent to the following promise before the degree is conferred:—"You do solemnly promise that you will, to the utmost of your abilities, exert your influence for promoting the welfare and respectability of the profession; that you will demean yourselves honourably in the practice thereof; that you will not put forth any nostrum or secret method of cure, and that you will not publish any matter or thing derogatory of the profession."

MEDICAL CONVERSAZIONE.—The medical profession of Newcastle and the neighbouring towns had an opportunity of meeting together, for social and scientific purposes, on Tuesday evening last, at the residence of Dr. Dawson, the lecturer on Midwifery, &c., at the Newcastle-upon-Tyne School of Medicine and Surgery. There were present about 150 gentlemen; and, with the exception of the Vicar of Newcastle, T. J. Cookson, Esq., N. Lambert, Esq., and a few others, they were all of the medical profession. The conversation and discussion which ensued, upon the examination of the rich and varied series of anatomical preparations, was lively and animated, and seemed to afford the learned in the healing art the greatest satisfaction. The fine specimens of diseases of the heart, liver, kidneys, and other viscera, &c. &c., showed how capable was the Medical School of Newcastle of teaching morbid anatomy. A number of powerful microscopes revealed the wonders of minute structures, and were well calculated to gratify both the professional and non-professional observers. These, with a spirometer (which Dr. Glover was kind enough to superintend), instructed and amused the company for some time. It would be impossible to particularize all that was submitted to inspection. Suffice it to say, that curiosity and pleasure seemed to pervade every group. The scientific proceedings were followed by an elegant and plentiful repast, to which ample justice was done. A strong desire was expressed that this, the first in the neighbourhood, should not be the last *conversazione*. A very agreeable feature in the events of the evening was to observe the renewal of old acquaintance and friendship, which was taking place upon all sides, amongst gentlemen who had been separated by the cares and hardships of country practice since they had passed their studentship together. It was to all intents and purposes a "reunion." Among the numerous assembly we noticed Dr. Headlam, Sir John Fife, Dr. White—nay, the whole of the medical profession in Newcastle; and Gateshead was also present in the persons of Mr. Bennett, Dr. Jolly, Dr. Dixon, &c. Every town and village in the vicinity was fully represented.

STATISTICS OF THE MEDICAL COLLEGES OF THE UNITED STATES.—The following table, compiled from the published catalogues, exhibits the number of students and graduates, in most of the medical schools in the United States, for the session 1846-7. We regret that there are several blanks in the table, which we are unable to fill, some schools having failed to furnish us with their catalogues:—

	Students.	Graduates.
University of Pennsylvania	411	163
Transylvania University	205	64
Harvard University, Boston		
College of Physicians and Surgeons, N. Y.	194	51
Medical Department, University of the city of N. Y.	410	123
Ohio Medical College	170	53
Medical Institution of Geneva College	158	43
Med. Dep. of Willoughby College (Cleveland, Ohio)	160	
Albany Medical College	160	32
University of Louisville	249	75
Western Reserve College	216	
Franklin Medical College	17	5
Pennsylvania Medical College	95	33
Jefferson Medical College	492	177
Rush Medical College (Chicago)	70	16
University of Maryland		
Medical College of Georgia	106	38
Med. Dep. Hamp. Sidney College	76	17
Med. College, State of South Carolina	204	74
Med. Dep. Univ., Missouri (St. Louis)	102	28
Indiana Medical College (Laporte)	104	19
Berkshire Medical Institution		42
Medical College of Louisiana	166	27
Medical School of Maine (Brunswick)		
Vermont Medical College (Woodstock)	96	
Yale Medical College		28
Castleton Medical College	131	42
Memphis Medical College	66	
New Hampshire Medical School (Hanover)		
Buffalo Medical College	67	17
Washington Medical College, Baltimore		
Med. Dep., Columbian College (Washington)		
Med. Dep., St. Louis University (St. Louis)		12
Med. Department of Illinois College	89	18

POISONING BY CAMPHOR.

A robust young man, twenty years of age, being in a laboratory while lumps of camphor were broken down, swallowed bit by bit to the extent of two drachms. Becoming affected with headache, he went home, and then his actions and gestures took a strange turn. After some gambols he went into his own room, whence he came out very soon stripped entirely naked, dancing, and seeking to leap out at a window. A medical man being called in found the patient in a state of excitement bordering on frenzy; the pulse small, 180; the conjunctivæ injected; the pupils a little dilated; the respiration hurried; the breath exhaling the odour of camphor; the face pale, without intelligence; the desire to pass urine frequent; the urine clear, and with the camphor odour; a viscid sweat covering the whole body. The wine of opium was administered. The patient vomited the contents of the stomach, in which were bits of camphor. He had an inclination to sleep, which was combated. Soon after, some amelioration of the symptoms being observed, he was permitted to sleep, and, after sleeping for three hours, he awoke without any recollection of what had passed.—*British American Journal of Medicine*, and *Union Médicale*, Feb. 12, 1848.

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MORTALITY TABLE.

For the Week ending Saturday, March 25, 1848.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1099	1107
SPECIFIED CAUSES...	1096	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	280	184
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	53	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	117	138
Diseases of the Lungs, and of the other Organs of Respiration	186	225
Diseases of the Heart and Blood-vessels.....	28	39
Diseases of the Stomach, Liver, and other organs of Digestion	56	62
Diseases of the Kidneys, &c.	9	9
Childbirth, Diseases of the Uterus, &c	13	18
Rheumatism, Diseases of the Bones, Joints, &c. ...	5	8
Diseases of the Skin, Cellular Tissue, &c.	..	1
Old Age.....	46	79
Violence, Privation, Cold, and Intemperance.....	34	31

NOTICE.

SUBSCRIBERS IN ARREAR are respectfully requested, in conformity with the terms of their subscriptions, at once to forward their remittances to the OFFICE.

☞ The subscription for the stamped edition of the *Medical Times* is 15s. for the half-year, and £1. 5s. for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfrae.

TO CORRESPONDENTS.

At the last moment we find that, through an increase of subscribers, we remain a few short in our supply of Charts. Gentlemen, hence overlooked, will receive Charts with their next number.

"S. B."—The registration would be both as surgeon and *physician*. There is, however, but the slightest shade of a chance of any bill this session.

The letter signed "*Jack Ketch*" is quite inadmissible.

The letter to "Lord Morpeth" is in type.

"H. B."—We suppose that the taint is hereditary and uncontrollable. The statement of details may be useful, but scarcely requires publication in our columns.

"Mr. Evan Thomas, Cumberland Infirmary, Carlisle," is thanked for his offer, which will be acceptable. The request shall be attended to.

"Bibliograph, London," is thanked for his suggestion.

"A Pupil."—We cannot interpose.

"S. H. D.'s" communication has been received and acknowledged; and if our correspondent had access to our table he would look on the delay he complains of with less severity. Our correspondents count by hundreds weekly rather than units; and we endeavour to consult the convenience of all.

"Medical Apprentice."—No provincial hospital containing fewer than 100 beds is recognised by the College. We know nothing of the one referred to.

"An Obstetrician."—The credit is due to Maior and Kergaradue. The instrument scientifically used affords more indications of value in the treatment of labours than our correspondent surmises.

"Mr. Hamilton."—The mistake was our correspondent's.

"A Reader and Contributor."—The delay has arisen unavoidably. The communication has not been forgotten.

"Germanicus."—The University of Heidelberg is governed on liberal principles. Poor students are admitted to the lectures without paying fees. Those persons who have not undergone the necessary preliminary education, or desire to follow only a particular science, are not inscribed among the students, but are termed "licentiates," and attend the lectures as such. We do not recommend, however, foreign studies, except in addition to a previous course at home.

"O. P. Q."—The lectures will be received by the examiners of the College of Surgeons.

"Dr. J. D'Oyly."—1. We must decline the recommendation. 2. The work is published by Hodges and Smith, Grafton-street, Dublin.

"Mr. Garland."—We cannot comply with the request.

"Agricola."—Liebig states the weight per individual at at about 3 lb. per diem, The other question should be submitted nearer home.

"A Regular Reader."—A communication was forwarded, and the numbers sent.

"A Student, St. George's."—The lectures are not concluded.

"Iota."—We have seen the statement: it cannot be relied on.

"A Student of the Classics."—The learned differ. It is considered that the Latin author borrowed it from Hippocrates, and that it means a secretion from the mucous membrane of the intestines.

"P. P., Portsmouth."—We shall be glad to read the promised communication.

"Omicron" is inadmissible.

"M. D."—1. The qualification will be recognised. 2. As a physician.

"A Poor Surgeon."—The amount of annuities which will be granted are calculated upon the payment of the annual sum of a guinea; but, if the society should be encouraged, the amount of annuities will be increased.

"A Reformer."—Our correspondent's fears are groundless. The profession has sufficient power to prevent the threatened danger. We decline publishing the letter.

"A Practitioner with Two Tails" writes us that medical men ought to place no confidence in either of the two London Colleges. "They have," he remarks, "proved no friends either to science or to the profession, and it is not likely that they will now settle the question of medical reform without an especial regard to their own interests."

"Mr. Ridley."—In the dairy *Times* of last Friday week.

"P."—The debt cannot be recovered in the County Court.

"Amator Scientiæ."—"Noad's Lectures on Electricity."

"M. A."—The manuscript is under review.

"Auditor."—The report would occupy too much of our space.

"Hygiene."—The opposition which the bill is likely to receive will be defeated. The subject of the enclosure has been discussed in "The Health of Towns' Magazine"—an excellent work.

"Amicus."—The publication of the letter would expose us to an action.

"An Extra-Licentiate."—The original statute is felt by the officers of the College of Physicians to be a blot in the charter which they are anxious to wipe out. Our correspondent should address the president without delay.

"An Edinburgh Surgeon."—It would be necessary to obtain the Apothecaries' licence. The indentures would be received, though the master was not in possession of the company's certificate.

"Esculapius."—A member of the College, according to the present arrangement, will be able to register as a surgeon, but, should he supply medicine to his patients, he must enrol in the Royal College of General Practitioners, and register as a surgeon and general practitioner.

"A Club Surgeon."—This evil can only be remedied by the medical gentlemen in the neighbourhood coming to some arrangement among themselves. The letter we cannot publish.

"Homo."—It is equal to about two ounces and a half avoirdupois.

"A Three Years' Subscriber."—The fault lies with the bookseller through whom the numbers are forwarded.

"Anatomist."—The fact is noticed in "Hassall's Microscopic Anatomy."

"Ajax."—1. There is no prospect of the bill passing into a law. 2. The Master of the Apothecaries' Company should be applied to.

"M. R. C. S."—The diagnosis *is* attended with difficulty: why not call in a brother practitioner?

"Frank."—The work is not yet completed.

"B. W."—Gluten is a substance which will effectually decompose the poison.

"Mr. King."—The numbers are out of print.

"Lex."—We cannot engage to arbitrate.

"A Medical Assistant."—Any shipbroker will give the desired information. A diploma would be necessary to practise in any of the English colonies.

"T. C. D."—The address has been received.

"M.D., a Subscriber."—The preparation may be relied upon. It is about half the price of the sulphate.

"E. Moss" wishes to know the composition of the blue, red, and yellow colours in chemists' show-bottles.

"M. M."—The duties are onerous and ill paid for. The double qualification is required.

"Chirurgus Londinensis."—The hospital contains 140 beds. The daily deliveries average six or seven, and require three or four pupils to be constantly on duty. The fee for an in-door pupil is £21, including lectures for six months. An externe for the same time pays ten guineas.

"Civis."—Five years' service before he is eligible to the rank of regimental surgeon, and of staff-surgeon of the second class.

"R. N." would oblige us by forwarding his address.

"A General Practitioner, Chelsea," writes us, "The druggists in my neighbourhood, many of them, make no scruple whatever of violating the Apothecaries' Act by visiting patients, when requested, at their own homes, and charging them for the medicines sent. I know of a druggist who has recently retired from practice with a good fortune, who for some years exercised all the functions of the general practitioner, with the exception of attending midwifery cases. This man 'set up' for himself in 1830, without having been apprenticed to a druggist. He was twice threatened by the Company with a prosecution for illegal practice, but he took no notice of the threats. Reform is needed, for we have now no protection."

"Not a Foreign M. D."—They are permitted, but have no authority.

"Dr. Nichol Crook, Durham," — Communication received.

"Dr. Berncastle's" note has been received.

We have received no less than five letters in one day, asking questions requiring both time, attention, and some study, to answer. The postage of none of these letters was pre-paid. This is, of course, the only notice we can take of them.

"A Constant Reader, Castletown, Isle of Man."—No.

"W. C. C., Edinburgh."—A. cannot be compelled to pay the sum.

"A Devonshire Student."—If the Students' Number of the *Medical Times* is consulted, there will be found all the information sought in the four first questions. To question 5, No.

"Mr. A. W. Close, Manchester."—The requests shall be attended to.

"Mr. S. M. Curl."—Communication received.

"P. S."—There was no part of Wardrop published last week.

"A Subscriber."—Our number of Charts is limited. It is a gift which might have been spared without injury, and may be obtained in the usual way. "Is thine eye evil because mine is good?"

"Q."—We cannot notice political insanity except shown on medical matters.

"Wear."—Should the new Medical Bill become law, persons who have been in practice a few years without any qualification will not be allowed to register equally with a member of the College of a few years' standing.

Letters and Communications have also been received from S. B.; H. B.; Mr. Evan Thomas, Cumberland Infirmary, Carlisle; Bibliograph, London; A Pupil; S. H. D.; Medical Apprentice; An Obstetrician; Mr. Hamilton; A Reader and Contributor; Germanicus; O. P. Q.; Dr. J. D'Oyly; Mr. Garland; Agricola; A Regular Reader; A Student, St. George's; Iota; A Student of the Classics; P. P., Portsmouth; Omicron; M. D.; A Poor Surgeon; A Reformer; A Practitioner with Two Tails; Mr. Ridley; P.; Amator Scientiæ; M. A.; Hygiene; Amicus; An Extra Licentiate; An Edinburgh Surgeon; Esculapius; A Club Surgeon; Homo; A Three Years' Subscriber; Anatomist; Ajax; M. R. C. S.; Frank; B. W.; Mr. King; Lex; A Medical Assistant; T. D. C.; M. D.; E. Moss; M. M.; Chirurgus Londinensis; R. N.; A General Practitioner, Chelsea; Not a Foreign M.D.; Dr. Nichol Crook, Durham; Dr. Berncastle; A Constant Reader, Castletown, Isle of Man; W. C. C., Edinburgh; A Devonshire Student; Mr. A. W. Close, Manchester; Mr. S. M. Curl; P. S.; A Subscriber; Q.; Wear; A Physician; Philo; A Dash; A Cambridge Student; An Old Member of the Profession; M. D., a Subscriber; Pharmacien; Scotus; Dr. Calvert; A Medical Student; Mr. James Braid, St. Peter's-square, Manchester; A Third Year's Student; Mr. F. Smith Gartick, Halifax; Dr. Brown, Belgrave-house; Mr. H. Hastings, Stoken Church; Mr. Thos. Brown, Castle Donington; Mr. G. Hepworth, M.R.C.S. and L.A.C.; R. P. C.; Echo Veritatis on Medical Reform; Justitia; C., Edinburgh; Amicus Justitiæ; Veritas; A Constant Reader; Mr. F. C. Howard, Linton; Dr. Moses, St. Asaph; Dr. Fleming, Bailieborough; Mr. Trueman, Durham; Mr. Wilson, Glasgow; Mr. Fowle, Harbury; Dr. Thompson, Berwick-on-Tweed; Mr. Boulton, Usk; Mr. Brady, Harrow; Mr. Overton, Bawtry; Mr. King, Stratton; Mr. Patten, Keyingham; Dr. Christie, Newmachan; Dr. Flynn, Clonmel; Dr. Inglis, Halifax; Mr. Pothecary, Manslaw; Mr. Steven, Longford; Mr. Watling, Leominster; Mr. Boxall, Wisborough-green; Mr. Coad, Yealmpton; Mr. Buckley, Rochdale: Mr. Cumming, St. Leonard's; Dr. Conolly, Waterford; Mr. Morrison, Aberdeen; Mr. Hood, Morpeth; Dr. West, Daventry; Mr. Hollis, Yarmouth; Mr. King, Camelford; Dr. Davis, Outerarde; Mr. Cartwright, Teignmouth; Mr. Stookes, Liverpool; Mr. Manthorpe, Colchester; Mr. Muggeridge, Uxbridge; Mr. Joy, Maidstone; Dr. Brown, Ballagh; Dr. M'Keag, Coleraine; Mr. Bishop, Kirkstall; Mr. Thomas, Llandovery; Mr. Higgins, Ludlow, &c. &c.

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No. 445. SUMMARY. April 8.

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ORIGINAL LECTURES.

LECTURES ON SOME OF THE MORE IMPORTANT POINTS IN SURGERY.

By G. J. GUTHRIE, Esq., F.R.S.,
Read by Mr. HANCOCK, Surgeon to the Charing-cross Hospital, and Lecturer on Anatomy and Physiology at the Royal Westminster Ophthalmic Hospital.

Lecture IX.

ON WOUNDS AND INJURIES OF THE CHEST.

Penetrating wounds of the chest; stab by a triangular sword, small knife, or other weapon; symptoms and treatment; examination of the wound by probes not generally admissible; Dr. Mayer's case of penetrating wound made with a knife, and retention of part of the knife in the wound for some days; the question of closure of the external wound; Paré's opinion, illustrated by cases; Wurtz's opinion; sucking the wound, its advantages and dangers; La Motte's cases of penetrating wounds; Ravaton, Dionis, and Larrey on the closure of the external wound; effects of sucking the wound; position in incised wounds of the chest; case of bayonet wound in the chest; treatment of incised wounds of some extent; use of the suture through the skin only; consequences of such wounds; existence of alarm or shock immediately consequent on the wound; treatment of the reaction; inflammation of the pleura; wounds of both cavities of the chest usually regarded as mortal; cases; Mr. Keate's successful case of sword-thrust through the chest; fatal case of pistol-shot wound involving both cavities; two important points in the treatment of large and direct incised wounds of the chest; Mr. Hewson's mode of proceeding; closure of the wound confirmed by later writers; effects of the closure of the wound; effusion into the cavity the natural result of inflammation which has passed the stage of adhesion; two cases in which closure of the external wound was successfully practised; the non-closure of the wound endangers the extension of inflammation to the whole cavity of the pleura, with subsequent effusion; cases by Mr. Stanley and Dr. Foltz; indications of effusion; cases; hemorrhage from penetrating wounds of the chest; difference of opinion as to the treatment when the hemorrhage is severe; the proper treatment to be pursued; reopening the wound to evacuate the effusion when the hemorrhage has ceased; when the inflammation has passed the adhesive process, and effusion has taken place, the sooner a free discharge is effected the better; treatment to arrest the hemorrhage, other than closing the wound; cases by Dionis, Le Dran, and Mr. Guthrie; Valentin on the treatment of hemorrhage in such cases; Pechlin's case; commented on by Valentin; Valentin on the ecchymosis indicative of the effusion of blood into the chest; Saucerotte's case; Larrey's cases; general conclusions.

The simplest injury, perforating the wall of the chest, is a stab by a triangular sword, or small knife, or other weapon, which may or may not abrade the surface of the lung, and which is usually attended by little pain, although it often gives rise to considerable alarm. It might be supposed that a very slight injury of the lung would be followed by some expectoration of blood, but this does not always take place, and, although its presence may be considered demonstrative of the fact, its absence is no proof of the contrary; for a considerable injury from a stab and from a musket-ball may be inflicted, with scarcely, and sometimes even without, any sign of blood in the matter expectorated. If the pleuræ are in their natural state, a small quantity of air may enter the chest, but the opening will require to be direct, and tolerably large, before the lung will separate or shrink from the wall on this account; and, if adhesions should have been previously formed between the pleuræ, they will be for the advantage of the sufferer. In all these cases, the closure of the parts by a compress on the removal of the weapon, together with the effusion of blood into the cellular membrane, although to a small extent, are sufficient to obviate further mischief; and if proper care be taken to prevent and subdue inflammation, if it should extend beyond the bounds of healthy action, the patient will soon get well.

In a simple incised wound, injuring the lung, perhaps extensively, as supposed from the bleeding from the mouth, no examination by probes or other instruments need or ought to be made, as a general rule; but the wound should be immediately closed, after the external parts have been sufficiently examined to satisfy the surgeon that no portion of the offending instrument is broken off and sticking in.

Case 55.—Julian Busse, seventeen years of age, having fallen on the ice, was brought to Dr. Mayer, in 1801, in an apparently dying state, with a very small wound in the left side of the chest, corresponding to the interval between the seventh and eighth ribs. The lad thought it was made by a sharp-pointed knife he had in his pocket, the handle of which alone could be found. After some days, as the symptoms of inflammation increased, a closer investigation was made, and something hard felt in the situation of the little wound, which being laid open, showed the broken blade, which, was extracted by means of a strong pair of forceps. The wound thus opened discharged a quantity of matter for a long time; symptoms of phthisis supervened, matter was coughed up, and the patient escaped, after a length of time, with difficulty.—(Dr. Mayer, "Tractatus de Vulneribus Pectoris Penetrantibus," p. xxvii., Petropoli, 1823.)

If the blade had been withdrawn in the first instance, the wound in the lung and the pleura would, in all probability, under proper care, have healed without passing into the suppurative stage.

It has been a question, from the earliest periods of the middle ages, whether this should or should not be done, as may be seen in the writings of Guy de Chauliac, born about the year 1300, and of John de Vigo, in 1460. Paré, 1510, describes his practice in two successive cases. In the first, the soldier had one wound out of three which penetrated the cavity of the right side of the chest the width of five fingers, which Paré says had been indiscreetly sewn up, because the surgeon had not seen whether it penetrated the cavity or not. Being called to the case next day, he found the patient could hardly speak or breathe, suffering great pain at the wounds, coughing and spitting blood, with considerable fever. He, therefore, reopened the wound, had the patient held up by the legs and turned on the wounded side, that the effused contents of the chest might be evacuated; after which he daily washed out the chest, first with bitters, and afterwards with mild injections, leaving a canula in the wound, and in due time the patient recovered.

In the second case, in a German gentleman living in the Rue Saint Denis, who had had a tent placed in his chest the day before for a wound he had received, Paré withdrew the tent because nothing had been poured out into the cavity, and closed the wound, the patient getting well; and he protests that a similar result had followed such treatment in many other cases. His precise direction is to keep the wound open two or three days, to see if effusion of blood took place, and if none occurred the wound was then to be closed.

Wurtz, in 1576, however, laid it down as a general rule, that all wounds penetrating the cavity of the chest should be closed by suture—a proceeding he objected to in most wounds in other parts of the body; his advice does not, however, appear to have been followed.

The advantages derived from the closure of such wounds led to the practice of sucking them by the mouths of irregular practitioners, generally the drum-major of the regiment, when the patient was a soldier; and the consequences, although in some instances apparently miraculous, were in others quite as unfortunate.

La Motte, who was practising as far back as 1696, says, page 18 of "The Complete Treatise of Surgery," that he saw two soldiers, who, he did not doubt, had been run through the body, and who, after being sucked, recovered so as to be able to walk about the streets next day; and he honestly adds, that if the suckers would confine their practice to proper cases—to those in which there was no particular bleeding—that their method would be better than those more purely chirurgical and scientific. The suckers merely washed their mouths with a little wine from time to time, and when they had done they applied chewed paper to the wounds. They did not, however, omit to mutter some words, supposed to be cabalistic, and which gave offence to the clergy, who would not administer the last sacrament to the wounded so practised upon; but La Motte says it was not necessary to understand magic, whether white or black, to be able to practise so simple an art.

Case 56.—La Motte was called in May, 1696, to a soldier, who, being wounded by a sword between the fifth and sixth ribs near the sternum, had been sucked by the sucker of his regiment. As he had not spit blood, La Motte thought that the great difficulty of breathing under which he laboured arose from an extravasation of blood

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within the chest; he, therefore, passed a hollow sound through the wound into the cavity, and drew off a pint and a half of blood, which gave him great relief; as the oppression returned, he repeated this operation, with the same result, but not to the same extent. It was done every day for ten days, when the discharge, although still reddish, became serous. This gradually diminished, and he was cured in a month.

It is very likely that the lung was scarcely hurt in this case, but it is possible that an intercostal or internal mammary, or some other vessel within the chest, was injured, giving rise to the bleeding.

Case 57.—In his 217th Observation, La Motte says he was called in July, 1697, to a grenadier, wounded nearly in a similar manner, and sucked after the most approved fashion. About to die of suffocation, La Motte drew off the extravasated blood, and saved his life. This he was obliged to do again next day, the discharge continuing for four days. This man recovered sooner than the other.

Case 58—218 of La Motte—remarkable for the size of the wound from a sword, which entered the chest, near the armpit, from which the patient lost a quantity of blood, as well as by the mouth, and was nearly suffocated. La Motte removed some twenty ounces of red blood from the chest by his hollow sound; dilated the external parts, &c. The next day he drew off a similar quantity, and repeated it for five days, after which it gradually became purulent. At the end of a month, four ounces only of a very offensive pus were discharged daily, and this with difficulty. La Motte found out, very luckily, that the best way of removing it was by making the man speak. He, therefore, set him to say his prayers, until the cavity of the chest was emptied by the motion, this course probably being aided by position. La Motte adds, that he knew his prayers very well for a dragoon.

Ravaton follows La Motte, in his approval of this practice in simple cases. Dionis affirms that continued bleeding is the only good reason for not closing a wound in the chest by the ordinary surgical means. Baron Larrey has zealously supported this practice, and is said to have reintroduced it into France, where it had possibly fallen into disuse; although I am not aware that any other practice was pursued in England during the last fifty years; and as to the sucking, I confess my belief that, in proper cases, it is the best method of proceeding.

That bleeding should take place into the cavity of the chest from the lung is indisputable, but little or no blood will escape through so small a wound; and its flowing from a very small wound will be a presumptive, if not a conclusive, proof that some artery external to the pleura has been wounded. Sucking, under ordinary circumstances, of a small wound unattended by bleeding, does good by attracting the natural fluids to the parts, and thus causing them to swell, so as to be placed in apposition in the most advantageous manner for their reunion. Sucking, in all probability, has little or no influence on the inside of the chest; and punctured wounds of small size may, therefore, be sucked chirurgically, instead of washed, if any one is willing to do it; after which, a bit of gold-beater's skin, or dry lint, is to be placed upon it, supported by a compress covered by adhesive plaster; these dressings should not be removed for several days, unless symptoms arise indicating mischief within the chest requiring particular assistance.

In all cases of incised wounds of the chest, the patient should lie on the wounded part, as a general rule, if he can conveniently bear it; not for the purpose of allowing any effused blood or fluid to flow out, unless some particular reason requires this precaution of keeping the wound open; but to allow the pleura covering the lung to be as closely applied as may be to the pleura lining the wall of the chest, with the hope that the adhesive process may take place between those parts, and by this means cut off the wound from the general cavity of the pleura.

Case 59.—A grenadier of the 29th Regiment was stabbed by a bayonet, on the heights of Rolica, in 1808, in the right side of the chest. The triangular wound was small; and it did not appear, on measuring a French bayonet, that it had gone in beyond three inches. He spit a little blood, which soon stopped, and he did not suffer any pain worthy of complaint. A compress and piece of adhesive plaster were applied, and allowed to remain on for several days. He recovered after one good bleeding and a little starvation, without any bad symptoms, and suffered no inconvenience afterwards.

It is probable that in this case the lung never receded, and that the cut parts united by the adhesive process, the pleura pulmonalis adhering to the pleura costalis.

Incised wounds of greater extent ought never to be examined by probe or finger; no disturbance of any kind should be permitted, unless the cartilage or bone be injured; and the external parts should be brought together as closely as possible, so as to facilitate in every way their union, and the processes which it is desirable should go on within. The external parts, or skin and cellular membrane, can rarely be kept in perfect and continued apposition without sutures; and the method of proceeding I recommend is to sew up the wound in the skin with a needle and fine silken thread, in a continuous manner, including absolutely nothing but so much of the cut edges as will retain the thread; a small piece of gold-beater's skin, or lint, should then be laid over the stitches, and retained by a compress and adhesive plaster.

In a simple case of this kind little or nothing is effused into the cavity, or secreted from the membranes of the chest, which will interfere with the process which may have happily begun, and which it is desirable should be aided by the absolute quiescence of the patient, to whom no medicine should be given which may render any movement of the body necessary. It was formerly supposed that the greatest object to be attained was the prevention of inflammation; and a man was no sooner stabbed by his opponent than he was blooded by his surgeon, regardless of the necessity which existed for the presence of a certain amount of inflammation in order to enable nature to carry on those processes which are essential for the restoration of the injured parts. This inflammation should be allowed to commence without interference, and to continue in a moderate degree until the object shall be effected. It should only be interrupted or subdued when it is supposed to be about to exceed that degree which experience has pointed out as likely to be useful.

When the most courageous persons are wounded in parts which are usually considered essential to life, there is more or less alarm or shock created by the injury; although it has been gravely argued that a man does not always know when he is actually shot or run through the body. I have not met with such cases; and consider a continued state of anxiety and depression after an accident of this kind a disagreeable accompaniment of the injury, during which little should be done beyond quieting the apprehensions of the patient, and leaving him to rest, if possible, after the absolutely necessary applications have been made. If a gradual improvement take place, if the pulse rise, if the patient resume more of his natural appearance, and that state of commencing excitement which is denominated reaction follow, some hopes may then be entertained. The general symptoms, as long as they continue within ordinary bounds, are of little importance; the local ones, significative of action commencing in the injured part, are, however, to be carefully watched. They are those of inflammation of the pleura, and it may be of the lung. This inflammation begins slowly, and a day or even more may elapse before it is well marked; and, when persons have died within the first few hours from such injuries, the pleura has often shown but little sign of inflammatory action. Auscultation should always be resorted to from the moment of injury, and constantly used throughout the treatment; although the patient should not be moved from off the wounded part. Whenever it is concluded that adhesion between the two pleuræ has failed to take place, this direction ceases to have the same importance; but until this period no food whatever should be allowed, and thirst should be allayed by small quantities of water.

A punctured, incised, or gunshot wound, going fairly through both cavities of the chest, is usually believed to be quickly, if not immediately, mortal; an opinion which will in general be found to be correct with respect to wounds made by musket balls, although it is certainly not the case with regard to punctured wounds, and does not always occur in those made by small or pistol balls.

Case 60.—Sergeant-Major Richards, of the 29th Regiment, received thirteen sword or bayonet wounds, and other injuries, on the heights of Rolica, on the 17th of August, 1808; one particularly through each side of the chest, between the ribs, as if the small sword or bayonet had made a deep and, consequently, a triangular wound of larger size than usual. He has distinguished himself greatly in covering the body of his commanding officer, and was thus beaten down before the British column could rally and recover its ground. He was an object of particular attention to me, for the few minutes he lived after I saw him; he had coughed up a little blood, and died gasping, as if suffocated, the chest labouring on each side to do its work in vain. His commanding officer, Lieut.-Colonel the Hon. George Lake, lay dead by his side, killed instantaneously by a musket-ball, which passed from the upper part of the left to the right side of the chest.

Case 61, by Mr. Keate.—A French gentleman fencing with an Englishman in play, received a blow under the right axilla in a violent lunge, whereby the button of the foil was broken off, and the foil itself passed into and through the back part of the thorax, the point coming out between the sixth and seventh ribs on the left side, near the angles. There was little bleeding. The chief symptoms were those of great inflammation of the contents of the chest, which gave way to full and repeated bleeding from the arm, with perfect rest, and almost starvation. He recovered very favourably, and was quite well in about eight weeks. He remains well, and is following his profession as a teacher of fencing, I believe, at the present time in Paris.

Case 62.—Lieut. O. was wounded in 1814 by a pistol-ball at twelve o'clock, which entered, as was afterwards ascertained, a little above the nipple of the right breast, fractured the third rib; passed through the right lung near its root, entered the posterior mediastinum, took away a portion of the œsophagus, about the size of a shilling, from its anterior part, where the trachea lies upon it, but without wounding the latter; it then penetrated the substance of the left lung, fractured the fourth rib, and lodged in the integumenta below the left axilla, whence it was afterwards removed. He was largely bled, and taken to his quarters. His countenance was pale, lips livid; pulse small; breathing hurried and difficult, and he complained more of a sense of suffocation than pain. Emphysema had a little puffed up the left side of the chest and neck, and at every expiration the air rushed through the wound with a force sufficient to blow out a candle; his voice was not at all impaired. At about ten o'clock in the evening he breathed his last. On opening his body the ball was found to have traversed the chest as before described; a large quantity of fluid blood was extravasated into each cavity of the thorax.

I have seen several cases in which, from the apparent course of the balls, it seemed probable that both sides of the chest had been penetrated. At Brussels, for instance, in one soldier's ball had entered to the left of the sternum, and range but, passing under that bone at the upper and fore part of the chest. The right side of the chest was certainly penetrated, but I was by no means certain as to the left; nor, in another case, in which a ball assuredly passed from side to side under the sternum, was it manifest that the right

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side was actually opened into. Nevertheless, as men have survived for some hours, at least, after both cavities have been penetrated by small musket-balls, and some appear to have recovered, it must be admitted that a wound, and particularly a punctured wound, through both sides of the chest is not necessarily fatal.

When an incised wound or stab into the chest is large and direct, injuring the lung, two very important points usually demand immediate attention. The first is to relieve the oppressed state of the breathing; the second, to suppress the bleeding, if profuse.

Mr. Hewson, in his paper on emphysema, published in the third volume of "The Medical Observations and Inquiries," for 1767, has stated that in large penetrating wounds of the chest, with injury of the lung, the patient has breathed most easily when the external wound has been covered, and has been hardly able to breathe when it was opened, which he attributed to the air getting into the cavity of the thorax in inspiration, instead of entering the lungs by the trachea. Later experience has confirmed this fact, as well as that advanced by Le Dran, that the closure of the wound was the most efficacious means of arresting hemorrhage from the lung. The result of the closure of the wound in the first case is, that adhesion may take place, and under proper management the inflammatory action within the chest may terminate; but, if the inflammatory symptoms continue, adhesion does not take place, and the secretion and effusion of a quantity of serous fluid are the consequence. This secretion of fluid is the natural consequence of inflammation which has passed the stage of adhesion, whether the injury of the chest has occurred from a stab or from a gunshot. It is the leading fact in the treatment of these injuries, and has hitherto been disregarded by writers on this subject, but on the proper management of which, in both instances, a successful result principally depends. If the closure of the wound leads to the re-establishment of the breathing, and the antiphlogistic means employed (and they must be of the most rigorous nature as regards abstinence and general and local bleeding) to the cessation of all urgent inflammatory symptoms in the course of a few days, adhesion has most likely taken place, or is about to take place, in the sero-sanguinolent of the wound; and the patient will, in all probability, recover without much further suffering.

Case 63.—A soldier of the 9th Regiment was wounded at Corunna, in 1809, by the point of a sword in the left side. It penetrated the chest, making a wound somewhat more than an inch long, which gaped, and through which air passed readily, accompanied by a very little frothy blood, which had also spit up on any effort being made to cough, leaving no doubt of the lung having been injured, and which appeared to be retained against the wall of the chest. As the edges of the wound could not be accurately kept in apposition by adhesive plaster, I inserted two sutures through the skin, and thus brought them together; and the man was desired to lie on the injured side, with the hope that adhesion might take place, as there appeared to be no effusion into the cavity, probably from the pleura having adhered from previous inflammation. This man was freely bled on each of the two days following the receipt of the wound, in consequence of pain and other signs of inflammation coming on; after that he gradually recovered.

Case 64.—A French soldier was brought into the village after the battle of Vimiera, on the 21st of August, 1808, who had been wounded by a pointed sword in the right side of the chest. He said he had lost a good deal of blood; was very pale; pulse small; extremities cold; breathing hurried and oppressed; had spit up some blood. On removing the handkerchief, a gaping wound, an inch and a half long, presented itself, through which, if a pair of forceps were passed, and a little separated, the cavity of the chest could be seen, the lung having receded. The wound did not bleed. As adhesive plasters would not keep the edges of the skin in perfect contact if he attempted to move, they were sewn together, and after the application of a compress he was much relieved. The next day all the symptoms were much alleviated, and I was, subsequently, informed that after the supervention of some inflammatory symptoms, which were steadily subdued, he was forwarded to Lisbon for embarkation for France, in a fair state of recovery.

It was the successful results of these cases which led me afterwards to close all such wounds in the first instance, with the hope of preventing thereby the extension of the inflammation—which must of necessity be set up in the part—to the whole sac of the pleura, which in many instances it succeeds in doing; and that which was done from apparent necessity, rather than scientifically adopted, became with me a rule of practice, which may be laid down as a principle to be followed in similar cases. When persons thus wounded are neglected in the first instance, the wound remains open; the inflammation may not afterwards be effectively subdued; and the cavity of the pleura passes into a state of suppuration, after all the symptoms have taken place of acute pleuritis or pleuro-pneumonia; but these symptoms may also occur even if the wound appears to close, and must be treated accordingly.

Case 65, by Mr. Stanley.—I was summoned to a young medical man, who, a few hours previously, had passed through the left side of his chest a double-edged amputating knife, of the usual size employed for amputation of the thigh in adults, by the circular incisions. The knife entered just below the nipple, and passed out of the chest an inch and a half from the left side of the spinous process of the third dorsal vertebra. Considerable emphysema ensued around both wounds in the walls of the chest, and for several days a small quantity of blood was mixed with the sputum.

Not a bad symptom of any kind followed, no dyspnœa, disturbance of the circulation, nor other ill consequence. He was very freely bled three times, when the state of the pulse appeared to indicate it. He took nothing but toast and water for five days, when he was pronounced well. He recovered his usual health without further interruption.

Case 66, by Dr. Foltz, of the American navy.—A young man from the Ohio, a servant of Lieutenant Ganzevoort, was admitted with a wound of the right lung from a blow with a Spanish knife. The weapon passed over the edge of the scapula, entering the thorax between the first and second ribs from behind. He ran to the first door and fell senseless, expectorating large quantities of blood. Our first object was to induce syncope, which was readily effected by allowing the blood to flow freely from the wound. The *deliquium animi* being complete, there followed for the time an arrest of the hemorrhage. The intercostal artery was not divided, but, judging from the copious hemorrhage, the knife must have penetrated deeply into the substance of the lung. The edges of the wound were brought into apposition by a deep interrupted suture, compress, and bandage. The patient was ordered to be kept perfectly quiet, and not even permitted to speak, and two grains of the acetate of lead were ordered every two hours. The patient was almost completely exhausted in consequence of the loss of blood, by which only the internal bleeding was arrested. On the following morning it was found that the function of the right lung, in consequence of the internal effusion of blood, had been almost entirely suspended, respiration being carried on by the lung of the opposite side. The bowels were opened by an enema; the acetate of lead was still continued at greater intervals; and cooling acidulated drinks were given in small quantities.

Third day. Some expectoration of blood during the night; complaints of pain and soreness in the right chest; but the external wound is healing by the first intention. Seidlitz powders ordered every two hours, until the bowels be moved, also an infusion of sem. lini, acidulated, for a common drink, with perfect rest.

The temperature of the apartment was kept as high as the patient could endure without inconvenience, and in so doing we had no reference to the thermometer, which, for the three weeks immediately succeeding the accident, never fell below seventy degrees, and usually stood near seventy-six. To this high temperature we attribute, in a great degree, the recovery of this patient from a most formidable wound; and the efficacy of this treatment we have since had ample opportunity of testing in various cases. Indeed no means with which we are acquainted promotes union so rapidly in lesions of all the tissues, including even fractures of the large bones, as a high temperature.

Fifth day. The surface of the wound has completely united, but there is evidence of incipient emphysema; the subjacent parts are elevated and puffed, the lower costa of the scapula projects, and there is daily an expectoration of blood, which gradually diminishes in quantity. On the removal of the suture, the newly cicatrized wound opened readily, allowing a quantity of air and serum to make their escape. Ol. ricini ℥j., which operated freely.

Seventh day. The patient is much more comfortable since the wound commenced discharging. There is a constant oozing of serum mixed with small bubbles of air; the tumefaction under the scapula is much reduced; the right side and shoulder are much discoloured from ecchymosis; respiration has become more natural, and is unaccompanied with pain.

Tenth day. This morning there is a slight return of hemorrhage from the lungs; ordered the acetate of lead to be resumed, and an enema to be administered.

Fourteenth day. The discharge of serum and air from the wound has daily diminished in quantity; the respiration has become easy, the patient being now able to breathe in the horizontal position, having been heretofore obliged to remain with his chest almost erect; a more nutritious diet allowed.

Nineteenth day. The wound has again united; free expectoration; respiration is daily improving, in proportion to the absorption of the effused blood. Eight weeks after the receipt of the wound, the patient was returned to duty on board ship.

Dr. Foltz thinks the happy termination of this case must be attributed to the syncope from the loss of blood, immediately after the injury was received, and, perhaps, to the beneficial effects of the high temperature preserved throughout the treatment.

If the union of a large incised or other wound by the adhesive process does not take place, a bloody serous fluid oozes out from under the dressings, if the oppression of breathing should not render it necessary to remove them; and the patient is relieved by the discharge which takes place, and which after a time, as the case proceeds towards recovery, will become less in quantity and more purulent in quality. If it should terminate in empyema, the principles of treatment are clear.

If the union of the divided parts should take place externally, and the general as well as local symptoms become more urgent, there can be little doubt of a collection of some kind having taken place, and it is now that auscultation and percussion, if it can be borne, become of the greatest importance. From the moment the wound is closed, and whilst the patient is awake, the stethoscope and the ear become the most important guides—the only ones, in fact, to be depended upon as to what is going on within the chest. The case is one of pleuritis, perhaps of pleuro-pneumonia, and hence the reason I have entered more fully on the symptoms and treatment of these complaints than might be considered to appertain to the province of surgery. It was because I knew that the fluid thus effused should be evacuated by the very small trocar and canula, as soon as its existence in sufficient quantity to compress the lung has been ascertained by the stethoscope or the ear, that I dwelt on their use; and to the lectures which treat upon these points

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the surgeon must now turn for the desired information. This effusion of a bloody serous fluid comes on, after a penetrating injury, from the third until the seventh or ninth day, by which time the cavity of the pleura will, in all probability, be filled; and puncturing the chest between the sixth and seventh ribs, at the point of election, must be resorted to for its evacuation.

Case 67.—A soldier of the 3rd Division of Infantry, whilst under the command of Sir James Kempt, was wounded at Waterloo by a straight sword or sabre, which penetrated the left side of the chest. He fell, and lost a considerable quantity of blood from the mouth as well as from the wound, and was supposed to be dying. On showing some signs of life, the wound was covered by a part of his shirt, and on his arrival at the Elizabeth Hospital, in Brussels, four days afterwards, it was closed. On the ninth day, when my attention was drawn to him, he was sitting up in great distress, from difficulty of breathing, his hand pressed upon the wounded part, the cicatrix of which was red, swollen, and projecting. I recommended the assistant-surgeon in charge to open this with an abscess lancet, which he did, giving vent to a very large quantity of bloody and purulent matter, to the great relief of the patient for several days, although he did not ultimately recover.

Case 68.—In another and very similar case, in the same hospital, my attention was drawn to the patient in consequence of the wounded part having yielded by ulceration on the night of the eleventh day, the purulent discharge having been great. This man was also lost, principally from want of care in the first instance, and from too long delay in obtaining that relief which his case required, the necessity for which I have endeavoured to enforce.

Case 69.—A piquet of Portuguese infantry being surprised by a sudden rush of French cavalry from the town, during the first unsuccessful siege of Badajoz, previously to the battle of Albuhera, were nearly all sabred. Those who survived were brought to me. They had all received several wounds, and among them were two who had been run through one side of the chest, and one through both sides, which last died a few minutes after I saw him. The other two seemed to be nearly in a similar situation from loss of blood by the mouth and from the wounds. These were immediately closed by stitches, compresses, and adhesive plasters. A little hot brandy and water was given to each, and they were laid aside without hope of recovery, whilst attention was paid in turn to the others. They did not, however, die; the breathing became more easy, the distress less, the pulse more distinct; reaction after a time took place. The next morning, the siege being abandoned, they were removed to Elvas, where I heard they arrived safely in two days, apparently doing well.

The advantages derived from the closure of the wounds in these cases was manifest. It relieved the breathing, and caused the hemorrhage to cease, aided, in all probability, by the exhausted state of the patients. I considered the relief to the breathing to have been at the moment the most essential point gained; the wounds of entrance being near two inches long, and the free admission of air quite unopposed, the lung had receded from the opening.

In the *Lancet* for July, 1825, page 94, there is the case of a person wounded by falling on a spike, which penetrated the thorax, between the third and fourth ribs. The lung receded to the distance of six inches. The wound was kept open, and the patient died next day—in all probability from its having been so done.

The important question of hemorrhage remains for consideration in cases of incised wounds admitting of being accurately closed, which gunshot wounds will not generally do. In many instances the quantity of blood effused is trifling, and in others, although greater, it is absorbed without gravitating to the diaphragm, or being productive of evil. In a third class of cases the quantity extravasated is larger than is likely to be absorbed, although it does not flow in an inconvenient or dangerous manner through the wound, and may ultimately become coagulated, and adherent to the diaphragm and spine in the angle between them, when the patient lies long on his back. In the worst or most alarming cases, the discharge is and has been so great that its suppression offers the only chance for the continuance of life. It is between these two last cases only that a difference of opinion has existed as to the treatment to be pursued, and it may be shortly stated. One party desiring that the effused blood, if moderate in quantity, should be allowed to discharge itself, the wound being kept open; the other, that under all circumstances, whether the quantity of blood poured out be small or great, the wound should be closed, and the result awaited. The right course, perhaps, will be, and it is the one I recommend, to remove all the blood which can be evacuated by position, provided it can be done without danger to the patient, before the wound is closed. A man under any of these circumstances must lose a quantity of blood before he recovers, and it is better not to allow it to fill the chest, if it can be prevented; but as the bleeding vessel in the lung cannot readily be got at if seen, and if got at cannot be secured by ligature with advantage, the only means left, if the bleeding continue, is to close the wound, and allow the cavity of the pleura to be filled, until the lung shall be sufficiently compressed to cause the hemorrhage to cease, if the person should survive so long. The closure of the wound is sometimes sufficient, by preventing the admission of air, to arrest the apparently departing life of the sufferer, and to give almost immediate relief. The decubitus should be in that position, under such circumstances, which may be most comfortable to the patient. The first object is to save life; after that, if time be given, the next will be to relieve the loaded cavity; but what time may be required by nature to render the suppression of the bleeding permanent has not yet been clearly ascertained. Baron Larrey has supposed nine days, before the lapse of which time he thinks no attempt ought to be made to evacuate any part of it, or of the serous fluid which may be intermingled with it. On this point I venture to differ in opinion. After the wound has been closed, and the patient has so far recovered that reaction has begun to take place, it may be concluded that the bleeding has ceased. The chest should then be most carefully auscultated from day to day, so that its respiratory state may be known, particularly that indicating the increase of effusion, which would then be serous. This will not take place until after the third and not, perhaps, before the fifth or sixth day, in any considerable quantity; the wound should then be reopened, or another opening made at the most convenient place for the evacuation of the effused blood and serum. It is probable that the wound of the vessel in the lung which furnished the blood will be as safely closed in five days as in nine, whilst it is of great importance that this organ should be early relieved from pressure, that it should be allowed to expand, and not be bound down by false membranes, which will be the case if the compressing fluid be not removed, and the inflammatory symptoms subdued. There is no object to be gained but the suppression of the hemorrhage, by retaining the blood and serum poured out within the chest; the probability of a return of the bleeding is not great after an early opening has been made, although much mischief will inevitably follow the effused fluids remaining too long.

Repeated observation has shown that in sabre wounds penetrating the chest and lung, which have not united, and from which no excessive hemorrhage has occurred, a great discharge of serous fluid usually takes place from the cavity, which, gradually diminishing, becomes purulent, and at last ceases, without the function of the lung being destroyed; whilst, if the wound had been early closed, and the fluid collected too long retained, the function of the lung will be impaired, and a counter-opening, which will be necessary for the relief of the resulting empyema, may be unavailing. I am distinctly, therefore, of opinion, that whenever the adhesive process between the pleuræ has failed, and great effusion has taken place, the sooner it is discharged the better. To ascertain the proper time for doing this, when the wound is not open, requires great care and unremitting attention in the use of the stethoscope.

In addition to the closure of the wound, it is desirable to arrest the hemorrhage by other means, if possible, such as the abstraction of blood from the arm, to the utmost extent it may be considered the patient can bear; the administration of the acetate of lead with opium, or the mineral acids; and the external use of cold or iced water, if it can be borne. If there be reason to believe that a rib or ribs have been injured, that any extraneous body is enclosed in the wound, or, from its appearance, that it will certainly reopen, an incision should be made in the part injured, for the purpose of giving the necessary assistance. The cure, however, will not only be assisted, but mainly effected, by procuring a depending opening. This may in some cases be accomplished by means of the small trocar and canula introduced as low down as auscultation and percussion will authorize; and the introduction of this instrument will give the desired information on one hand, and do little or no harm on the other. It is so important in cases in which any foreign substance or solid body may be supposed to be loose in the cavity, that the opening should be but little above the plane of the diaphragm, that much care and attention should be devoted to this point, and some risk, even, incurred.

Case 70.—Dionis, in his "Operations of Surgery," p. 418, relates the case of a soldier wounded by a sword in the breast, under the right nipple, whose chest had filled with blood by the time he was brought to him. He dilated the wound sufficiently to allow the blood to flow readily from it, and directed the patient to lie on the wound all night, so as to allow the blood to drain out. Finding the cavity empty next morning, he closed the wound, and the man rejoined the army, cured, in one month.

Dionis adds, that bleeding from it is the only reason for not closing a wound in the chest as quickly as possible, and he is exceedingly zealous for making a counter-opening in a convenient place, when the wound is not favourably situated for the evacuation of the effused blood.

Le Dran, in his "Treatise or Reflections on Gunshot Wounds," published in 1742, at Amsterdam, was aware of the inutility of everything, except the means adopted by nature, for the suppression of hemorrhage from a wounded lung, and advises, therefore, that the wound should be closed, in order that the bleeding might be arrested by the pressure of the blood effused, saying that the blood thus effused should only be evacuated when the oppression in breathing is insupportable, and then only in sufficient quantity to give relief, but not to favour, if possible, by the removal of the pressure, the recurrence of the hemorrhage. After a time, he adds, the whole may be evacuated, when the discharge will be purulent.

Case 71.—A soldier of the 3rd Regiment of Infantry was wounded by a lance at the battle of Albuhera, in the left side, between the fifth and sixth ribs, and was thrown down, bleeding from the mouth and from the wound, which was afterwards closed by his comrades, by confining upon it a piece of his shirt folded up for the purpose. Brought to the hospital, at the village of Valverde, he appeared to be dying ten days afterwards, from difficulty of breathing. On examining the wound, which was slightly emphysematous and ecchymosed, a little coagulated blood was removed from it, and, on enlarging the opening in the integuments, a quantity, partly fluid, partly coagulated, issued from the cavity of the chest. The wound was kept open to allow the discharge of a considerable quantity of reddish watery fluid, which, after a few days, became purulent. At the end of three weeks I sent him to Elvas doing well, and with but little discharge from the wound.

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Case 72.—A heavy dragoon, of the German Legion, was wounded at the battle of Salamanca, by a sword, which penetrated the cavity of the right side of the chest, between the sixth and seventh ribs; he fell from his horse, and lost a considerable quantity of blood from the mouth and from the wound, which last was stopped by pressure made upon the external opening. Brought to me at the field hospital next day, I found that he had recovered from the immediate effects of the injury and loss of blood, although greatly oppressed by difficulty of breathing. On examining the wound, a black coagulum was seen filling up the orifice, the cellular membrane around being considerably ecchymosed, and little doubt existed that the oppression was caused by blood effused into the cavity. On removing the coagulum, and separating the edges of the wound by a director, several ounces of blood, half fluid, half coagulated, were readily evacuated, this object being assisted by turning the patient, so as to make the external opening, which was enlarged, quite dependent. When the discharge had ceased, the lung was seen in contact with the external opening of the wound, having expanded as the pressure of the blood was removed from it. As no fresh blood issued, it was evident that the bleeding from the lung had ceased. The wound was now closed simply, by lint, compress, and adhesive plaster, without bandage; he was largely bled, and placed upon his wounded side on the ground, as comfortably as circumstances would permit, and in some degree relieved from the oppression in breathing. Two days after, the wound discharged freely a reddish-coloured watery fluid, evidently from the cavity of the chest, the exit of which was aided by keeping the wound generally dependent. This continued for several days, gradually becoming less in quantity, and purulent; and under careful management he was able to go to the rear, nearly well, by the end of October.

Case 73.—A French cavalry soldier was wounded at Waterloo, by a sword thrust into the right side of the chest, between the fifth and sixth ribs; the wound bled largely, and he also spat up a great deal of blood. The bleeding from the wound was stopped by binding various articles of dress upon it, and he remained five days on the field of battle. On his arrival in the hospital at Brussels, he was bled, and treated systematically for several days. The wound had closed, but the oppression in breathing increased; and I saw at once, from the smoothness of the chest, the filling up of the intercostal spaces, and the bulging of the cicatrix, that the chest was full of fluid, and recommended an incision to be made into it, through which three or four pints of bloody fluid were evacuated, to the great relief of the patient, who nevertheless ultimately died.

Valentin, whose "Recherches Critiques sur la Chirurgie Moderne," published at Amsterdam in 1772, to which I have already alluded, and which have frequently been noticed by writers on injuries of the chest, has not received the credit due to him from any of them. He was among the first to declare that all wounds of the chest should be immediately closed, for the purpose of suppressing hemorrhage; that a counter-opening should be made, if necessary, and made early, for the evacuation of the effused blood; and that in such cases the effusion of a quantity of blood would be known by an ecchymosis formed over the angles of the ribs. The recommendations of Baron Larrey, and those of others, as well as my own, add nothing to what he had already said; they have only enforced what had been neglected. He supported his opinions by impugning the practice of Pechlin, often quoted as Pechlinus, in a particular case, which had been precognised as one so exceedingly successful as to induce Baron Haller to give it a place in his collection of remarkable cases, and it was considered as a model to be followed in future.

Case 74.—A student was wounded by a sword on the 4th of May, 1679, between the fifth and sixth ribs. Pechlin, finding him in a faint and almost dying state, gave him a cordial, and, as no blood flowed from the wound, a tent was introduced. Four hours afterwards, the oppression and pain being increased, the tent was removed, and twelve ounces of frothy red blood were evacuated. The tent was reintroduced. There was neither cough nor spitting of blood. The 5th of May, twenty-eight ounces were let out at twice. On the 6th he was bled; twelve ounces of blood were removed by the wound, and a piece of bougie introduced. 7th. Fever; cough; dyspnœa; oppression; thirteen ounces of blood removed in the morning; at six in the evening a small astringent injection into the chest. On the 8th, the fifth day from the accident, four ounces of blood were evacuated. On the 9th, fourteen ounces, and in the evening twelve ounces more, and frothy, were discharged from the wound with great difficulty. Between this and the 20th, 140 ounces of blood were evacuated, the discharge being for the last ten days also purulent, and at last four ounces of pus only. From the 20th to the 30th, pus only was discharged; the patient then began to recover, and by the 31st of July he was cured.

Valentin, commenting on the treatment pursued in this case, declares that the repeated hemorrhages, and other bad symptoms, depended more on the tents introduced by the surgeon, on the dressing, and on the means employed, than on the nature of the mischief done to the parts; and that if, instead of keeping the wound open by a tent, they had allowed it to close, and had made a counter-opening in the chest at the place of election when the symptoms of effusion appeared to require it, the patient would have escaped with much less suffering. He then relates the following case from Smetius in support of his opinion. A soldier received a wound between the sixth and seventh ribs below the nipple, which, at the end of nine months, became fistulous, and placed him in the greatest danger, until he put himself under the care of John Walardin, one of the ablest surgeons of his time, who decided on making an opening into the chest below the wound. This he did, and, having broken down an adhesion between the lung and the wall of the chest, he evacuated a pint of matter, and removed the same quantity every day for four days. After the fifth day he injected a mild lotion, and the patient soon recovered.

On the subject of the ecchymosis, which he considers to be a pathognomonic sign of effusion of blood within the chest, he says, "It is very dissimilar to that which occurs after a blow or wound, and which takes place shortly after the accident, beginning around the wound if there be one, and extending from it. The patient also complains of pain when the bruised part is pressed by the fingers. These characters are not observed in the ecchymosis, the sign of effusion, which always takes place near the angles of the lower or false ribs, descending towards the loins. Its colour is identical with that which appears on the abdomen of persons some time after death—a bright violet (violet très éclairci). It appears about ten days after the receipt of the injury, sometimes later." The same sort of thing, he thinks, takes place when the cavity of the chest is filled with pus, but this œdematous swelling is without discoloration.

Sabatier, in his "Médecine Opératoire," 1822, edited by Sanson and Bégin, comments upon the opinion of Valentin, and relates the following case, communicated to him by M. Saucerotte the elder:—A carbineer was wounded by a sword on the right side of the chest, below the tendon of the great pectoral muscle, and appeared to be going on satisfactorily until the fifth day, when he complained of general uneasiness, difficulty of respiration, and inability to lie on the left or opposite side; he also suffered great pain in the upper part of the shoulder and region of the liver. These symptoms increased until the ninth day, when he could only obtain relief by leaning towards his right on a chair placed across the bed. This assemblage of symptoms induced M. Saucerotte to believe that a considerable quantity of blood was effused into the cavity of the chest; but, as the ecchymosis of Valentin did not appear, he delayed making an incision, and the man died the same night. An incision having been made into the dead body, allowed the evacuation of a quart of putrid blood.

This echymosis appears to be at all events a late symptom, not occurring before the first ten days, and not always to be depended upon; it should in general be anticipated by an opening into the chest, auscultation and percussion now offering, at an earlier period, more certain diagnostic signs of the existence of the extravasated blood than the ecchymosis.

Case 75, by Baron Larrey, "Mémoire sur les Plaies, &c., Académie Royale de Médecine," tome 1, p. 242.—A. C., twenty-six years of age, was wounded by a sword which entered the chest a little to the outside, and below the right nipple, the point passing out to the bottom in the armpit between the third and fourth ribs, and dividing the latissimus dorsi muscle near its insertion into the humerus. He lost a considerable quantity of blood, and was supposed to be dying. The next morning, on enlarging the wound, the fingers passed easily into the cavity of the chest. The intercostal artery was supposed to have been wounded, but the hemorrhage had ceased. From the wound in the lung, however, a quantity of red frothy blood still continued to ooze. The cut edges of the wound were brought together by compress and bandage; the chest, belly, and limbs, were well rubbed with hot camphorated oil, and enveloped in flannel. In the evening he could speak, and there could be little doubt that the internal hemorrhage had ceased. On the night of the second day, symptoms of inflammation having declared themselves, the patient was largely bled, and slightly cupped with points, over the hypochondrium; he expectorated during the night a quantity of black blood. Respiration was less laborious, the pulse soft; the wound had nearly united; on the fourth day he eat some bread and meat, contrary to orders; was immediately taken ill, and threw up by the aid of some nauseating drink what he had swallowed. In a short time afterwards he became greatly oppressed, lost his speech, could scarcely breathe, and appeared about to die of suffocation. The wounded side of the chest was distended, and the pulse could not be felt. It was supposed that the hemorrhage had been reproduced by the vomiting. The chest was dry-cupped and iced, acid drink given until the morning of the fifth day, when an opening was made into the cavity of the chest, between the eighth and ninth ribs behind, and about ten pints of fluid evacuated of the colour of wine lees mixed with clots of blood; the cavity of the pleura being carefully emptied by the aid of a gum-elastic catheter, after which a small band of oiled linen was introduced, and the wound dressed in the ordinary way. On the sixth day, an elastic tube being introduced, a pint of bloody serous fluid was discharged. The wound was dressed twice a day. The tent was retained in the wound for ten days; the discharge then became purulent, and came freely from the wound, which remained open. After many disasters, after every appearance of phthisis, of consecutive diarrhœa, &c., the patient gradually recovered at the end of ten months. Eight years afterwards the right or wounded side of the chest was found to be less by one-half than the left. The ribs had lost a great part of their curvature, the shoulder was lower, the trunk bent to that side, the heart turned to the right, and its pulsations were felt opposite the cartilages of the eighth and ninth ribs. The left side of the chest was enlarged in a corresponding degree, and respiration was effected by this lung only. The arm of the affected side was atrophied; but the health under all these changes was good.

It may be remarked on this case that there can be little doubt that the vomiting which took place on the fourth day gave rise to effusion into the cavity of the pleura, and not to a renewal of the bleeding, as was supposed by the baron; for,

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if it had been blood which had been poured out, he would not have evacuated next day ten pints of a serous bloody fluid, that effusion being the consequence of inflammation taking place rapidly—a result in these cases always to be expected, and for which the surgeon should be prepared. The falling in of the chest was the consequence of the inability of the lung to expand.

Case 76.—Baron Larrey has also related the case of a soldier, twenty-two years of age, who, being wounded on the right side of the chest by a sword, had on the third day the ecchymosis of Valentin, and the other symptoms of extravasation. On the night of the 6th a severe paroxysm of fever took place, followed by a copious critical fetid sweat, after which the signs of effusion diminished, and the man recovered at the end of three months. The extravasation of a large quantity of blood may in this case be doubted, although the ecchymosis was present.

The baron has so effectively supported the views promulgated by Valentin, but which had been previously practised by La Motte and Ravaton, that the introduction of the practice has been attributed to him, but which, as I have shown, is an error; for, although the precepts of Valentin may have been forgotten in France, they were in existence; but the baron has the merit of having revived and confirmed them. In pursuing the same course, long before I had seen any of his works, I was not aware that I was acting out of the ordinary course of things, with the trivial exception of sewing up the skin of the wound by the continuous suture instead of trusting to a compress and bandage.

In order to be explicit on points so important as those of which I have treated, I have thought it right to lay down certain general conclusions, subject to general deviations:—

1. All incised or penetrating wounds of the chest should be closed as quickly as possible, by a continuous suture through the skin only, and a compress supported by adhesive plasters, the patient being afterwards placed on the wounded side.

2. If blood flows freely from a small opening, the wound should be enlarged, so as to show whether it does or does not flow from within the cavity. If it evidently proceed from a vessel external to the cavity, that vessel must be secured by torsion or by ligature.

3. If blood flow from within the chest, in a manner likely to endanger life, the wound should be instantly closed; but as the loss of a reasonable quantity of blood in such cases, say from two to three pounds, will be beneficial rather than otherwise, this closure may be delayed until syncope takes place, or until a further loss of blood appears unadvisable.

4. If the wound in the chest have ceased to bleed, although a quantity of blood is manifestly effused into the cavity of the pleura, the wound may be left open, although covered, for a few hours, if the effused or extravasated blood should seem likely to be evacuated from it, when aided by position; but as soon as this evacuation appears to have been effected, or cannot be accomplished, the wound should be closed. It must be borne in mind that the extravasation which does take place is usually less than is generally supposed—a point which auscultation and percussion will hereafter in all probability disclose.

5. If auscultation and percussion should indicate that the cavity of the pleura is full of blood, and the oppression of breathing and the distress are so great as to place the life of the patient in immediate danger, the wound, although recent, should be reopened, as in cases 56, 57, and 72.

6. As soon as the presence of even a serous fluid in the chest is ascertained to be in sufficient quantity to compress the lung against the spine, and time has been allowed for the closure of the vessel from which blood originally flowed, a counter-opening should be made in the place of election for its evacuation by the trocar and canula, which may be afterwards enlarged, unless the reopening of the wound should be thought preferable, which will not be the case unless it should be low in the chest.

PROGRESS OF MEDICAL SCIENCE.

Treatment of Asiatic Cholera.

The following remarks on the subject are extracted from a paper by M. Bally, whose name is attached to the most important therapeutical researches of the French school, and whose long career has been devoted to the study of epidemic maladies; his first appearance in the medical world was marked by the observation of the yellow fever at San Domingo, where the army, sent by the republic to that island, was decimated by the scourge. At a later period, M. Bally again had an opportunity of witnessing a fearful attack of this disease in Spain. M. Bally collected carefully all the cases of cholera which were admitted into his wards at the Hôtel Dieu during the epidemic of 1832, and he at present publishes the results of his meditations on the subject:—

1. The serum of the blood escapes from the digestive tube, and the brain, deprived of its habitual amount of stimulus, accomplishes its functions with great difficulty.

2. The eye is dried up from the arrest of the lachrymal secretions. The conjunctiva loses its brilliancy, and the nasal cavities are desiccated.

3. The mechanical part of respiration continues, but the vital and chemical functions of hematosis is in a great measure interrupted; hence the absence of oxydation of the blood, the disappearance of the scarlet colour, and of the cessation of production of animal heat. . . . .

11. The functions of the liver are interrupted. The gland retains even the quantity of bile previously secreted. The disease does not, therefore, deserve the name of "cholera."

12. It is more proper to call it "lymphatic choladrea," or "hydro-cholædrea," i. e., discharge of serum from the intestines.

13. The permeability of the integument is abolished, and also its function of exhalation; hence contact with the skin of a patient cannot communicate the disease. . . . . .

The bladder is empty, the renal secretion having ceased. The mouth is parched; the salivary glands do not perform their function; hence an unquenchable thirst. . . . .

17. Digestion is annihilated. . . . .

19. But the intestine is endowed by the disease with new properties—with new functions.

20. The intestine becomes the only active organ.

21. Its secretion consists in the fluid portion of the blood. This opinion is not that of Professor Andral, but the difference of opinion may arise from the experiments of the professor having exclusively borne upon sporadic cases. . .

25. No efficient method of treatment has yet been adopted, and it is not the fault of medical practitioners: the cause of the inertness of treatment residing in the abolition of the absorbing powers of the intestine.

26. In countries where no treatment was employed, one half of the patients recovered; and in the countries where the patients were submitted to the most rational methods, one half died, often more, seldom less. . . . .

38. A poison circulates in the blood; an antidote must be sought for. That antidote cannot penetrate into the system through the intestinal surface; it must be, therefore, introduced through the respiratory organs, with the assistance of some of those marvellous anæsthetic agents which modern science has placed at our disposal. —*Journal des Connais. Méd. Ch.*

Treatment of Fistula in Ano.—(*Incidat.*)—The innovation which M. Huguier proposes in the performance of this operation consists in the suppression of the wooden gorget usually employed, and the substitution of a speculum ani in its stead. After the incision of the rectum the operator, guided by ocular inspection, can with facility investigate the condition of the parts. If the intestine is detached above the fistular orifice, it becomes easy to divide it with a pair of scissors; if several fistular passages exist, the speculum permits their easy detection, and their incision can be performed with far greater readiness than in the operation hitherto adopted. Indeed the advantages obtained by the use of the speculum in this surgical process are so evident that it is needless to insist upon the value of M. Huguier's discovery. The speculum should be formed of two valves, hinged to each other on one of their edges, and free on the other: a very simple mechanism permits these two valves to approximate, and their interval is directed towards the diseased part of the rectum in such a manner as to expose it completely to view, and to render it more easy to divide with the knife. Four cases have already been operated successfully by this method.

History of the Cholera observed at Constantinople during the Winter of 1847-48. By M. Monneret, Professor Agrégé of the Faculty of Paris.

When I left France in November, 1847, the epidemic had been arrested at Trebisond, situated on the oriental shores of the Black Sea. This city had suffered cruelly. The disease had not extended beyond Kerasoun, also on the Black Sea, a little to the westward of Trebisond. On Oct. 24 it appeared at Constantinople without showing itself in the cities intermediate between that capital and Kerasoun.

When I arrived in Constantinople, at the beginning of December, the cholera morbus had attained a considerable degree of intensity. The soldiers were first affected, and also the latter were the sailors of the Turkish fleet, which had recently entered the harbour. On the 15th of December cases occurred on board one ship. The patients were removed to a temporary hospital belonging to the naval service. Up to the 24th 248 patients were admitted into this hospital, and 73 died. Towards the same period 72 soldiers had been received into the military hospitals, and of these 33 cases proved fatal. It would be difficult to state accurately the mortal proportion of the other inhabitants who were affected, but I am inclined to think that in stating them altogether 1500 cases occurred I am not far from the truth. My observations have been made in the military and naval hospitals; they have led me to the recognition of essential differences between the cholera of Constantinople and the Parisian epidemic of 1832. I have made these researches before the academy.

The comparison of the cases observed at Constantinople points out three distinct forms of the disease. The first is constituted by cholera complicating other maladies, the second is cholera, and the third differs little from Indian cholera. The symptoms, progress, and duration of each of these forms require a separate description.

1. *Cholera as a Complication.*—It would seem that in the incipient stage of the epidemic the specific influence was so weak that it was incapable of producing cholera unless assisted by some other affection, acting as a predisposing cause. It was, therefore, in patients suffering already from other disease that I first observed the development of cholera morbus. Occasionally it showed itself during the progress of some acute malady, such as pneumonia, bronchitis, pleurisy, simple or ulcerous colitis, dysentery; or during some chronic affection, phthisis, diarrhœa, or disease of the heart. In such cases the following symptoms were present:—Vomiting and diarrhœa, generally of bilious or serous matter, and, in some few cases of the special characteristic, fleecy evacuations. Vomiting was not constant, and in some cases even constipation was observed; the tongue was pale, moist, and cold; the abdomen soft, and generally tender on pressure, particularly at the epigastrium. The face was altered; the contraction of the eye vacant; the intellects dull, but present.

I carefully studied in the patients affected with this form of cholera the three phenomena called algor, cyanosis, and cramps. The face, hands, and feet, often the abdomen, and the legs were the seat of cyanosis and cold, which seldom

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invaded the entire body, and were usually less marked than in Asiatic cholera. I have seen them occasionally persist, during five or six days, with some modifications induced by treatment. In others the blue colour was replaced by a tint of brick-tinged red hue. The pulse, weak and seldom insensible, resumed in some degree its strength when reaction appeared; this reaction was not readily established, and followed the progress of the primary disease which cholera had complicated. I have, for instance, in several patients affected with pneumonia, seen the cyanosis rapidly arrested under the influence of antiphlogistic treatment when the pulmonary inflammation subsided. In other cases I have noticed repeated diminutions and increases of cyanosis, according to the fluctuations of the principal malady, and, finally, too prolonged cyanosis was sometimes followed by an adynamic state, which gradually augmented, and brought on a fatal termination. It is thus that most patients died; others, in small numbers, were seized with tetanic convulsions, and expired during phenomena of contraction, which seemed occasioned by congestion of the cerebro-spinal axis. The urinary secretion was suppressed. Cramps were uncommon in that form of cholera which we now refer to. The agitation of the patients was due to the intense abdominal sufferings.

Few patients affected with this cholera outlived the double malady which they laboured under; the mortality was, therefore, very great. It is doubtless very difficult to assign to each disease its share in the fatal issue; it may, however, with some probability, be admitted that the choleriform symptoms above described were in themselves insufficient to occasion death. Patients of robust constitution, and suffering from acute disease, recovered in larger proportions than the remainder.

Second Form, or Cholerine.—This form was much more frequent than Indian cholera, and showed itself towards the end of December amongst the sailors. In proportion as the disease extended to a greater number of individuals, its effects seemed to grow weaker, and the attacks of algid cholera became more frequent. The greater number of sailors who at a later period suffered from Asiatic cholera, or from fatal cholerine, belonged to the Turkish squadron, which re-entered the harbour of Constantinople on the 1st of December, after a three months' cruise in the Archipelago. They were subject to diarrhœa, indigestion, caused by bad food, to nostalgia, and other morbid causes, which we will notice. Under these unfavourable conditions, cholerine, having existed for one or more weeks, was replaced by an attack of slight or fatal cholera. The symptoms of this cholerine, altogether similar to those observed in Paris, require no peculiar description.

Third Form—Asiatic Cholera.—Its symptoms had, in their intensity, duration, and association, some special characters deserving of attention. The cyanosis, often intense, and similar to that observed in the most violent cholera, was almost always partial, and limited to the feet, face, hands, and forearms; it often ceased in twenty-four or thirty hours, without the patient being therefore out of danger. The skin of the cyanosed parts was viscid and wrinkled, as if macerated with water; the nails were often blue. The apparent refrigeration of the hands and feet afforded a contrast with the results of thermometric observation. In ten patients I examined the temperature at the axilla, and, if the thermometer was left a sufficient time, the mercury rose to 30° (96°), and less frequently to 31° (98). Under the influence of therapeutic agents capable of restoring heat the refrigeration speedily ceased; during several days, however, the calorification of the subject remained weak and uncertain until convalescence was properly established. I have assured myself that in many patients who lapsed into the adynamic state, although cyanosis never disappeared altogether, the skin remained hot and burning to the last.

Cramps were observed in about one-fourth of the cases: the tongue was moist and cold, but never blue. During the adynamic period it was red towards the apex, dry, viscid, and smooth; thirst was incessant, vomiting not frequent, and the rejected matter bilious, often fleecy and resembling rice-water. The abdomen often had the appearance special to Asiatic cholera; but what, in my opinion, constitutes an important difference is, that in many subjects the belly was, on the contrary, voluminous, swollen, distended with gas, sonorous in the course of the large intestines, and tender on pressure in the epigastric and umbilical regions. These abdominal symptoms were present in so many subjects affected with violent cholera, that they might be considered as characteristic, and required a special mode of treatment.

In all cases in which I sought for the symptom, I met with intestinal "gargouillement" (enterophony). The number of evacuations was not considerable, if compared with those of Indian cholera: in twenty-four hours the patients had seldom more than eight or ten motions. The matter was bilious or serous, sometimes fleecy and characteristic.

In bad cases the urine was almost invariably suppressed during several days; the respiration was frequent and laborious; some patients complained of considerable pain in the diaphragmatic insertions. During the period of reaction the pulse seldom exceeded 72; it rose to 108, and even 120, in the adynamic state.

After venesection the blood formed a black mass, which incarcerated the serum; the clot was soft, fragile, and presented no trace whatever of a fibrinous crust. In general, unless phlebotomy was performed during the first hours of the seizure, the blood flowed readily and even in stream from the venous orifice.

In mild cases, reaction was promptly established, and, if it was complete, convalescence soon set in; if, on the contrary, the cyanosis persisted, or diminished only in a slight degree, an adynamic condition was the result. This state, usually fatal, was marked by red patches on the face and hands, and difficulty of recovering heat; stupor or drowsiness, dulness of the eyes, convulsive closure of the lids, and dryness of the lips were also present. On the skin were observed no stains or typhoid eruption; epistaxis was not noticed; the spleen retained its natural size; and I have often at this period detected in both lungs sibilous or snoring rhonchi.

The extreme frequency of this adynamic state, which replaced the symptoms of cholera and even of simple cholerine, caused much anxiety to the physicians of the naval hospitals, who entertained fears of an early appearance of typhus in the narrow wards encumbered with a too large number of patients.

From the above description of the forms of the cholera at Constantinople, it follows that all the symptoms by which that malady is characterized were united in the greater proportion of the patients; these symptoms individually were, however, neither so intense nor so constant as in the cholera of 1832—the cyanosis, the refrigeration, and, more specially, the cramps being less violent.

Another important difference between the two epidemics consists in the predominance of abdominal symptoms, and the easy substitution of a generally fatal adynamic condition to cyanosis.

It would be hard to state what may have been the general mortality in Constantinople. One half of the soldiers, and rather less than one third of the sailors, affected were carried off by the disease.

(To be continued.)

Inoculation or Medicines.—Dr. Lefargue proposes for the introduction of drugs into the system, a method which had not hitherto been thought, of us., inoculation.

1. *Narcotics.*—If a lancet, loaded at its point with a salt of morphia reduced to a paste by the addition of some water, be introduced horizontally under the epidermis, a slight swelling and trifling congestion immediately occur, accompanied by a sense of heat and some pruritus. The morphia is evidently absorbed in a very short space of time, headache, yawning, and dryness of the mouth making their appearance. This method applies particularly to neuralgia of the face and scalp, and causes neither pain nor scars. Inoculation gives instant relief from toothache (inoculation of the gum), from the pains which follow herpes zoster, &c.

2. *Solanea.*—The extracts of belladonna and of hyoscyamus are too weak to be of much avail when introduced by inoculation with the lancet; but if numerous punctures be made upon any part of the integument, and a thick solution of these extracts is applied, the absorption is active and efficient.

3. *Strychnia.*—When this substance is introduced into the system by inoculation, its effects are very prompt: it relieves partial paralysis, and has been successful in rebellious chorea when inoculated along the spine.

4. *Veratrine* calms rapidly facial neuralgia and obstinate headache.

5. *Croton oil and tartar emetic* have also been employed in the same manner for the purpose of producing revulsion.

D. M'Carthy, D.M.P.

Definition of Yellow Fever.—Dr. Bartlett's) of the Transylvania University, U.S.), definition of yellow fever is as follows:—It is an acute affection; occurring at all ages, but much more frequently during the middle and active period of life than either earlier or later; attacking, in a large majority of instances, persons who are not permanent residents in the places where it prevails,—sometimes extending, however, especially in localities where it is of rare occurrence, to such residents; rarely occurring twice in the same person; much more common in the white than the negro race; generally milder in its character amongst children and women than amongst men; confined to certain geographical localities, and especially to commercial seaports in hot climates; prevailing most extensively during the latter part of the hot season; often epidemic, but sometimes sporadic in its appearance; not capable of transmission from one person to another in a pure atmosphere; depending for its essential cause upon a poison of terrestrial origin, the nature and composition of which are entirely unknown; which poison may be shut up in small and close apartment, in clothes, bedding, and so on, and transported from one place to another, and which is destroyed by a freezing temperature; sudden in its access; commencing with an initiatory chill, ordinarily of moderate severity and of short duration, the latter accompanied with acute and violent pains in the head, back, and limbs, or immediately followed by them; then by a red suffusion of the eyes, moderate heat of the skin, and moderate acceleration of the pulse, loss of appetite, and thirst; a moist, white, villous tongue, with rosy tip and edges; these febrile phenomena diminishing in activity, and mostly disappearing, in from twenty to thirty-six hours; the first stage of the disease, thus characterized, passing in mild cases into convalescence, but in grave cases being followed, after an interval of apparent but deceptive amelioration, by nausea and vomiting, the matter ejected from the stomach in cases that are to terminate fatally resembling coffee-grounds; black or dark-coloured stools; epigastric distress, general restlessness, and jactitation; sighing respiration; hiccough; a yellow colour of the skin; coldness of the extremities, gradually extending to the trunk; and finally, by death; the mind usually remaining free, but apathetic and indifferent, up to the close of life; which symptoms differ very widely in their degree of severity, and especially in their number and combination, in different cases, thus giving rise to different varieties and grades of the disease; which symptoms, furthermore, may either subside and disappear in the course of a few days from the time of their commencement, or may terminate with death between the third and seventh day of the disease. The bodies of patients exhibiting, on examination after death,

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in most cases, a yellow or buff colour of the liver, with dryness of its tissue; black spots or masses more or less numerous in the lungs; softness and flabbiness of the substance of the heart, and, in nearly all cases, unusual thinness and fluidity of the blood; and redness, mamellonation, changes in the thickness, and softening,—one or more—of the mucous membrane of the stomach; this organ and the intestines usually containing a considerable quantity of a very dark or black fluid or semi-fluid matter; which disease differs essentially from all others in its causes, its symptoms, and its lesions, and is only to a moderate extent, at least in its graver forms, under the control of art.

Treatment of Pneumonia.—Dr. George W. Balfour, in a paper read before the Medico-Chirurgical Society of Edinburgh, gives the following account of the treatment for pneumonia pursued by Dr. Skoda in the General Hospital, Vienna:—Leeches, cupping glasses, and blisters are never employed, and general bleeding only where the fever runs high, and the dyspnœa is great, previous to hepatization. After this has occurred, the abstraction of blood is regarded as injurious, diminishing the chance of a speedy and complete absorption of the exudation. If dyspnœa or cyanosis be occasioned by a secretion of tough mucus, an emetic is given. The general treatment consists in giving a scruple of extractum graminis, ext. glycyrrhizæ, or some other equally innocuous extract; from ten to twenty grains of nitre, or latterly a quarter of a grain of corrosive sublimate, by way of attempting to reduce the plasticity of the blood. These remedies are dissolved in from six to eight ounces of water, and given often warm, in the course of the day. From six to eight grains of Dover's powder are occasionally employed, or a grain or two of opium is given, according to the amount of pain and irritation present. Many patients are treated wholly without opium. All have a thick warm cloth laid over the chest. The temperature of the wards is about 60° F., summer and winter; and, though well aired during the former season, they are close and ill ventilated during the latter. The diet is in conformity with the habits of the people, and not more rigid than in other hospitals. This method of treatment has been pursued for three years, and the results have been most satisfactory.

Vesico-Vaginal Fistula Remedied by Caustic.—Dr. Elan W. Harris, of Elm Wood, Cape Girardeau county, Mobile, states the case of a married lady, aged thirty years, who laboured under the infirmity of vesico-vaginal fistula. Her garments were constantly wet; the vaginal cavity, labia, and thighs bathed with urine, in an erysipelatous condition, and exquisitely tender. The complaint had existed for five years, and occurred seven or eight days after a tedious first labour and violently severe manipulations of her midwife. In addition to the soreness caused by the irritation of the urine, she suffered violent pain in the bladder, which often prevented sleep whole nights; she sometimes passed urine in the natural way for a day or two at a time, but always with great pain; and if, during her monthly periods, the urine is discharged through the urethra, it is mixed with the catamenial fluid, just as it is when the urine passes through the fistula and vagina. The parts being too sore to attempt any exploration, recumbency, aperients, fomentation, and tepid lotions were enjoined. In a few days, her condition being much improved, the finger was introduced into the vagina, the walls of which felt hard and irregular, presenting to the finger the sensation of cicatrices. No os tincæ or neck of the womb could be felt. The vaginal speculum was now carefully inserted into the vagina, which terminated in a round sack-like cavity, without anything like the neck of a womb projecting into it. Instead of an os tincæ, a small opening was found large enough to admit a silver probe which entered the uterus; about three quarters of an inch from this aperture, in the anterior wall of the vagina, was found an oblique fistulous opening into the bladder (five lines in extent), through which the urine could be seen flowing. The bladder was then sounded, and a calculus discovered. On the second day after the examination, a long delicate pair of forceps was introduced through the meatus urinarius, with a bistoury at hand to make the proper incision, if found to be necessary for the extraction of the stone. By gently and gradually opening the chaps of the forceps, the urethra was sufficiently dilated in about twelve minutes (with very little pain) to take hold of the stone. In endeavouring to get a firm grasp, this was crushed to pieces; the fragments were removed with the forceps and syringe, at a sitting of a few minutes each day for five days, when no more could be found. Some of the particles passed through the fistula and were washed out of the vagina with a syringe. There were four drachms and six grains of gravel saved, and there was fully as much lost. No unpleasant symptom occurred, and she was permitted to walk about, expressing great gratification on account of freedom from pain. The incontinence was still annoying, and on the sixth day after the removal of the last of the gravel, the speculum was again introduced, and a piece of solid lunar caustic, made fast by a thread in the same forceps used for extracting the stone, was carried up through the speculum into the vesico-vaginal opening, and rubbed on the edges and angle of the wound, until they were completely cauterized. A tube was firmly fixed in the bladder to conduct the urine into a vessel placed below, and emollient injections daily used. On the third day there were tenderness and pain in the pelvic region, fever and bilious vomiting. The catheter was removed, and by the use of the lancet, an emetic, and fomentations, those symptoms were relieved. The catheter was then replaced and not removed until the eighth day, when it was found that she could retain the urine and pass it *per vias naturales*. The patient has menstruated three times since the operation without difficulty or pain, but the menstrual fluid passes from the bladder mingled with the urine, showing the existence of utero-vesical fistula. Fears are entertained that particles of the menstrual fluid retained in the bladder may form the nucleus of another stone.

Delirium Tremens induced by the Inordinate Use of Tobacco.—Dr. Wm. A. Gordon, of Harrisburg, relates the case of a man, aged seventy-one, who had been smoking tobacco to great excess for a number of years. At length he resolved to abandon the use of it altogether. The day on which he formed this resolution he smoked, in quick succession, nine cigars, which was followed by considerable nausea and giddiness for three days. These symptoms then passed off, and his health for a short time seemed better than usual; but after this brief interval he fell into a lethargic state, from which he was with difficulty aroused. This condition was succeeded by the symptoms of a true delirium tremens. He was wakeful, agitated, talkative, and alarmed at imaginary objects around his bed. His pulse was about eighty-five a minute, full, but soft; countenance dejected, with a wild confused look; skin cold and moist; bowels constipated; tongue moist and slightly coated. Two phenomena in connection with it are worthy of notice. 1. The patient previous to this attack had been hard of hearing. While labouring under it his hearing became excellent. 2. He had also laboured under some difficulty of speech for a number of years, owing to what seemed a partial paralysis of the tongue. When the derangement of the cerebral system came on, he recovered the use of his tongue and was able to speak distinctly and rapidly.

Rupture of the Uterus occurring during Labour.—A woman, aged thirty-seven, of muscular make and very choleric temper, had been in labour for six or eight hours, on the 1st of February, when at about four P.M., on getting on to the bed, she was seized with a tremendous pain, with which the waters were discharged, and a loud cracking sound was heard. She complained of great suffering at the umbilical region, and grasped this with both her hands. Labour-pains ceased, and she became ghastly and cold, so that her friends believed her in the act of dying. After a long period, however, they determined to call in advice, and about six hours after the accident Dr. Prassart saw her. He found her suffering from extreme prostration and intense tenderness of the abdomen, through the parietes of which the parts of the child were plainly felt. She was easily delivered of a dead child by means of the forceps, and a large discharge of blood followed. The size and position of the aperture could not be discovered, but the hand passed at once into the cavity of the abdomen, whence was the placenta removed, and large coils of intestines were found passing into the uterus. The woman after this seemed almost lifeless, and her friends were informed that she could not live the night. The patient was left four days to herself, when the physician was again called to visit her. There was now found severe inflammatory action of the womb and abdomen set up, accompanied by great prostration of strength. We need not follow the case in its remaining details; it presents an example of the occasional wonderful power which Nature employs in coping with the direst extremities of disease. The physician, from his infrequent visits (alternate days), and the purgatory character of his treatment, may be considered as having delivered it over into her hands, the result being, that in four weeks the woman was enabled to leave her bed. She continued for some time after her recovery to be tormented with occasional severe pains, but in the course of the following year natural menstruation was re-established.

PROGRESS OF GERMAN MEDICAL SCIENCE.

By Dr. BUSHNAN.

(Continued from page 371.)

5. On the Development of the Graafian Vesicle.—The progress of the development of the Graafian vesicle and the ovula of the mammalia not being sufficiently evidenced by the investigations of Valentin, Barry, and Bischoff, Werner Steinlin has made new researches into these processes of the animal economy. The results of his observations, in some respects, establish the opinions of former writers, while in others they differ from them. According to Werner Steirilin, the developments of the folliculus and ovulum are to be described as follows:—The vesicles or follicles of Graaf, or the ovi-capsules which contain the ovula of mammals and the human subject, are formed by cells of 0·006‴—0·009‴ diameter, including nuclei of 0·003‴ — 0·005‴. At a later period cellular fibres are to be seen intermixed with these. The cells occupying the space between the fibres are intermixed with larger cells of 0·009‴—0·013‴ diameter, with microscopic granules, and from two to four nucleoli, or second nuclei—the "tochterzellen" of the Germans—showing that the multiplication of the primary cells of the ovarium is owing to endogenous generation. In minute slices we perceive that in some parts there is an opaque and globular accumulation of these primary cells; and, by compression, that each of these contains in its centre a large transparent cell of 0·009‴—0·013‴, with a distinctly visible nucleus and nucleolus. Each of these accumulations is afterwards enveloped by a clear structureless membrane, 0·0004‴—0·0006‴ thick—the primordial follicle corresponding to the ovisac of Barry—which becomes the foundation of the further development of the follicle. On the exterior surface of this a layer of fibres is formed by the development of the above-described primary cells into cellular fibres. This layer constitutes the tunica propria of the follicle. On the interior surface the included cells, much increased in number by endogenous generation, form an epithelium—the membrana granulosa of the follicle; while the follicle, enlarging its size, is filled with a transparent fluid, in which the central cell—the vesicula germina-

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tiva—is suspended. This is soon surrounded with particles of fat, which are afterwards included in a structureless membrane—the zona pellucida, or chorion—at first very thin, but gradually acquiring its usual thickness. It is at this time that the ovulum, now formed, becomes imbedded in the mass of the membrana granulosa; at the same time the membrane of the primordial follicle vanishes, and the membrana granulosa comes in contiguity with the membrana propria of the follicle.

By Steinlin's researches on cows, pigs, dogs, cats, and rabbits, it is also proved that this formation of the follicles takes place not only in the fœtus, but in the adult, principally at the menstrual period or rut. No occasion offered to examine the bodies of healthy menstrual women. Is the macula germanitiva of the developed ovulum of the arachnidæ, the nucleolus, no more perceptible in the developed ovulum of the mammalia, was still distinctly visible. ("Mittheilungen der Naturforschenden Gesellschaft," 1847; pp. 156—168.)

6. Ozone the Cause of Catarrhal Diseases.—Some time ago Professor Schönbein, of Basel, discovered a new chemical preparation which he called ozone, but the properties of which have not yet been sufficiently investigated. Delarive and Berzelius are of opinion that it is a modification of oxygen, while Schönbein thinks it is a high oxidation of hydrogen. In the decomposition of water, ozone is formed on the + (positive) pole of a voltaic battery; it is also obtained by phosphorus in contact with humid air, and by electricity streaming into the air from points. It has a very strong smell, and, when inspired, it affects the mucous membrane of the respiratory organs in the same way as chlorine and bromine, and almost always produces very severe catarrhal affections. It is decomposed or oxidated by organic matter, and by hydrosulphuric acid. It decomposes the hydriodate of potass, separating the iodine. By the continual discharges of electricity into the atmosphere, a certain quantity of ozone must always be produced; and this, in summer time, if not in too large quantities, is always decomposed by the organic matter everywhere occurring. But not so in the winter, especially in the time of snow, when much electricity is discharged into the atmosphere, and little organic matter remains uncovered. And it is in the winter especially that catarrhal affections are most common. Schönbein, therefore, concludes very ingeniously, and, since we can almost always produce catarrh by breathing ozone, not improbably, that the cause of these affections as epidemics is ozone produced by electricity and existing undecomposed in the atmosphere. Last winter several catarrhal epidemics prevailed in Basel, and then Schönbein proved that, at the periods when these were at their height, the greatest quantity of ozone existed in the atmosphere. The experiments can readily be repeated, since the presence of ozone in the atmosphere is easily demonstrated by its power of decomposing the hydriodate of potass, and by the blue colour which iodine gives to starch. For this purpose starch is to be made into a paste with hydriodate of potass, and then spread upon a sheet of paper and suspended in the air. The greater the quantity of ozone contained in the atmosphere, the sooner the double decomposition takes place, and the paper becomes, in consequence, of a blue colour. The subject is one of much interest, and offers a tempting field for investigation and discussion. (Henlé und Pfeufer, Zeitschrift für Rationale Medizin, p. 178.)

7. Carcinomatous Affections of the Spine.—Dr. Bühler has lately described three cases of this incurable but interesting and very important disease, of which there are few records, and of those which have been recorded all are doubtful, except the four cases by Mr. Cæsar Hawkins, in "The Med. Chir. Transactions" of 1841. Dr. Bühler's cases are remarkable, insomuch that the affection presented itself apparently as a primary disease of the vertebræ, as in one of Mr. Hawkins's, in whose three other cases carcimona had already been developed in the mammæ or testes. Dr. Bühler's first case occurred in an actor, a remarkably fine and well-built young man of twenty seven years of age. The second was that of a man of sixty-nine, who from his youth had been scoliotic, or humpbacked, in consequence of a fall. The third was a woman of forty-two, who asserted she had had no previous illness. The first case was admitted to the hospital for paraplegia of the legs; the two other cases were sent in from the country as chronic rheumatism, for which they were at first, and unsuccessfully, treated. All three exhibited in the progress of the disease the greatest similarity of symptoms, the most prominent of which were excessive pains which yielded to no remedy; these were at first confined to the back, but soon they extended to other parts of the body, and never ceased. At times they were most severe, particularly during the night, depriving the patient of all sleep. Pressure upon the spinous processes and neighbouring soft parts, and any motion of the body, materially increased the sufferings; the most easy posture was half recumbent, in which the patients generally remained. There were frequent spasmodic twitches, sometimes in one group of muscles, sometimes in another; clonic spasms of the legs and starting of the whole body, accompanied with severe pain, but without any disturbance of the sensorium. The respiration was generally quickened, and sometimes genuine asthmatic dyspnœa, with great constriction of the chest, took place. Other groups of muscles were at times attacked with tonic spasms; thus the thighs were drawn up upon the abdomen, the muscles of which were frequently violently contracted. Constipation and retention of urine existed; at least, however, the sphincters became paralyzed, and then both fæces and urine passed involuntarily. According to the higher or lower seat of the disease, the upper or lower extremities were paralyzed, and sensibility partly or wholly extinguished. Occasionally formication and numbness were complained of; and motion, either voluntary or otherwise, always occasioned great pain. No scoliotic change in the form of the spine was observed, except in the young man, in whom the curvature became greater than natural; nor was the usual carcinomatous expression of countenance present, until near the end, when general cachexia was developed, and other organs participated in the disease. The progress was slow, death ensuing from the sixth to the ninth month. On dissection, the vertebræ were found softened, infiltrated by carcinoma, or wholly destroyed, and the whole spine more or less affected. The bones of the pelvis, femur, and sternum were also involved, and evidences of disease were found in the brain, lungs, pleuræ, liver, kidneys, and several lymphatic glands. ("Ueber Wirbeltuberkulose in einer bisher noch nicht beachteten form, und über den Krebs der Wirbelsäule von Dr. Heinrick Bühler." 1847.)

8. Laws Regulating the Labour of Children in Factories on the Continent.—Intimately connected with the progress of medical science are the laws which regulate the labour of children in factories; and perhaps it may be interesting to the readers of the *Medical Times*, particularly to those practising in the manufacturing districts, to learn how these matters are regulated in neighbouring countries. In France it is not yet decided how many hours a day children of seven, eight, ten, and twelve years of age are to work. The subject, however, has been under discussion, and the Count d'Aragout proposed to the Chambers that children from eight to twelve years old shall be permitted to labour only six hours daily. This, he said, was the utmost that, physically or morally, could be obtained from such children.

In Prussia, by a law of the 9th March, and an order of council of the 6th April, 1839, no child under nine years is allowed to labour in a factory; indeed, no child who has not been during three years at school, or who cannot produce a certificate from the constituted authority that he is sufficiently educated, can be admitted into a factory before he is sixteen years old, except, indeed, where there is a school in the establishment; and under sixteen years of age labour is restricted to ten hours a day; it is not allowed to be commenced before five o'clock in the morning, nor is it to be continued after nine at night. On Sundays and *fete* days it is altogether prohibited. And those who have not been confirmed cannot be employed in factories during the hours the Protestant minister or Catholic priest has set apart for their religious instruction.

In the Grand Duchy of Baden children who are at school—and all are compelled to go to school—are not allowed to labour in factories, except where a school is connected with the establishment; and under eleven years children are not allowed to attend factory schools under any circumstances whatsoever; neither can any child enter them at any age who has not taken his first and second degree, or step, in the "*écols primaires.*" Labour and instruction, taken together, are not permitted to exceed twelve hours a day. Labour is forbidden before five in the morning and after nine at night; also on Sundays and *fete* days.

In Switzerland there is no general federal law on the subject. In many cantons, also, there is no law regulating the labour of children, and the obligation of attending the schools in a great degree renders it unnecessary. Thus, in Bâleville children are obliged to frequent the schools until twelve years of age; in Bâle-campagne until eleven years of age; and until this obligation ceases none can be admitted into factories. In Zurich the labour of children is regulated by a law of the 15th June, 1837. In order to understand this it will be necessary to premise that, by a law of the 28th Sept., 1832, the canton of Zurich constituted two orders, or classes, of primary instruction—the lower school, "*écols inférieure,*" where children from six to twelve years old are to attend daily; and the upper school, "*écols supérieure,*" where they receive lessons six hours per week—that is, for one hour daily, and which they are obliged to attend from twelve to fifteen years of age; and, leaving this, they are further obliged, until the day of their confirmation, to attend others for religious instruction and for singing. The law, then, of the 15th June, 1837, declares that no child shall be admitted into a factory before he has passed through the lower school, which supposes him to have reached his twelfth year; and, after having passed this, no child is allowed to work in a factory unless the proprietor undertakes that he shall attend the high school, the school for religious instruction, and the singing school. Under sixteen none are allowed to work more than fourteen hours a day, inclusive of two hours at the school. It is also forbidden to labour at night or on *fete* days.

The canton of Argovie has no law to regulate labour, but there exists a very severe one respecting primary instruction, very analogous to that of Zurich, and which imposes even greater restrictions upon the employment of young persons in factories.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

A CASE OF VERY EXTENSIVE GELATINIFORM CANCER OF THE PERITONEUM, INVOLVING THE LYMPHATIC GLANDS OF THE ABDOMEN AND THE OVARIES, AND SIMULATING ASCITES.

By Edward Ballard, M.D. Lond., Physician to the St. Pancras Royal General Dispensary.

A married woman, aged fifty-five years, became a patient under Dr. Ballard's care, at the St. Pancras Royal Dispensary, on January 17 last. She stated that for twenty-seven years she had been subject to more or less severe epigastric pain. Between the ages of forty-five and fifty-two years she had suffered from an almost constant and very debilitating menorrhagia. At that time, also, there was an increase in the epigastric pain, which was occasionally relieved

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by an aperient, with the evacuation of mucus and membranous shreds, and a tumour was discovered beneath the margin of the ribs on the right side. In June, 1846, she slipped from some steps; a prolapsus of the womb followed, and she wore a pessary for three months. At this time the uterus ceased to prolapse, but she noticed the abdomen begin to enlarge, first at its lowest part; and she perceived a tumour in the hypogastrium, which, with that before detected, disappeared as the abdomen generally increased in size. About Michaelmas, in the same year, she struck her abdomen violently against a post, since which accident all her symptoms had been aggravated, the enlargement continuing to increase. She began to vomit a few months previously to her admission at the dispensary. On being visited, she presented the appearance of a person labouring under some severe organic disease, and was considerably emaciated. The abdomen was greatly enlarged, dull on percussion generally, and fluctuating most distinctly; it encroached very much upon the limits of the thoracic cavity. The umbilicus was remarkable in being stretched and flattened out, and not prominent, as is customary in ascites. The case was believed to be one of ascites, arising from cancerous disease about the larger divisions of the portal vein and under part of the liver; fibrous tumour of the uterus was detected, and encysted ovarian disease believed to be likewise present. She was tapped on the 24th, but only a teaspoonful of clear jelly passed from the trocar, and she died on the 26th. On examination of the body, the peritoneal cavity was discovered to be full of a firm and very tenacious gelatinous matter, emitting a very sickly odour. A large ruptured ovarian cyst, containing a similar matter, occupied the lower part of the abdomen, and there were several smaller cysts about the inlet of the pelvis. The whole peritoneal surface of the abdominal wall and diaphragm was infiltrated with colloid cancer, as also was a considerable part of the peritoneal coat of the liver and spleen. There was a large tumour lying upon the right side, which was formed by the omentum and mesocolic glands converted into colloid; and the mesenteric glands, with those about the under surface of the liver, were similarly affected. This diseased mass was connected below with a fibrous tumour of the uterus. All the gelatinous products, wherever found, presented the characteristic cells of cancer. (These appearances were illustrated by preparations and drawings.) In commenting upon the case, the author introduced his remarks by observing that, although colloid cancer of the peritoneum was not of very unfrequent occurrence, he had failed in his search after a case at all approaching it as regards extent, and he had been unable to discover another recorded instance in which colloid matter had been found free within the cavity of the abdomen. He believed that the disease had commenced in the mesocolic glands, from which it had spread upwards over the liver and spleen to the abdominal wall, and downwards to the omentum and ovaria; and that the general effusion of colloid into the peritoneal cavity had taken place subsequently to the rupture of the ovarian cyst from the blow which the patient had received upon the abdomen. These opinions were supported by considerations deduced from the appearances after death, and from the clinical history of the case. Admitting the insufficiency of the grounds on which M. Cruveilhier maintained the malignant nature of all encysted ovarian disease, the author, nevertheless, suggested that the opposite view of their nature would be found no less fallacious, holding that some forms at least deserved to be classed among cancerous growths, and alluding to the discovery of cancer cells in his own case, and in one which is recorded as having occurred in the practice of Dr. F. Bird. He regarded the present case as establishing the possible existence of three forms of colloid cancer:—1st, the ordinary locular form; 2nd, the encysted (so named by Cruveilhier); and 3rd, a free or unincluded form. He stated his belief that, in this instance, the plasma in which the free colloid was formed was only thrown out from such parts of the peritoneal surface as were in a state of disease. The paper concluded by drawing the attention of the society to two of the signs presented on physical examination of the abdomen: one was the perfection of the fluctuation, and the other was the unusual condition of the umbilicus, which the author suggested might assist in the formation of a more accurate diagnosis, should a similar case ever again occur.

CASES OF UNUNITED FRACTURE SUCCESSFULLY TREATED.

By William Bousfield Page, Surgeon to the Cumberland Infirmary.

The first case narrated by the author was that of a young man, whose radius and ulna had been fractured thirty-four weeks before the operation of excising the fractured extremities of the bones was had recourse to. He had suffered from other fractures at the same time, which had united soundly. The injured forearm was an inch and a half shorter than the sound one; the fracture of the bones was oblique, and the shortening resulted from overlapping of the extremities. The seat of fracture was exposed by incisions over either bone on the posterior aspect of the forearm, and, a curved director being passed beneath each fragment in succession, they were removed by means of a small Hey's saw, and with the assistance of cutting forceps. The forearm was then immovably fixed in an angular splint, in a position between pronation and supination. At the end of ten weeks, union was complete; and after the lapse of six months the patient had almost entirely recovered the original use and strength of his arm. The second case was one of ununited fracture of the tibia and fibula. In this instance the cause of non-union appeared to have been the want of entire and sufficiently prolonged rest, which was accordingly resorted to for two months, but without a satisfactory result. The author then inserted two setons, one over the outer, the other over the inner, surface of the fractured bone; but the threads were removed in ten days, in consequence of the inflammation that ensued. In two months more, union was complete. In the third case the injury was likewise a fracture of both bones of the leg. Maltreatment caused protrusion of the tibia, a portion of which was removed with a saw at the end of two months; and this operation was followed by repeated exfoliation from both tibia and fibula. In this way nine months elapsed before there was any attempt at union, when the patient came under the author's notice. His first care was to heal the wounds, and next to keep the limb at perfect rest for three months. Union was then complete. The fourth case was an illustration of non-union from want of proper nutriment. When this necessary adjunct to surgical assistance was supplied, the patient, a female, speedily recovered. In the fifth and last case, non-union of fractured tibia and fibula was accounted for by syphilitic taint in the system, which was corrected by the specific influence of mercury, and then union took place. The author concluded with some general remarks on the causes of non-union of fractured bones, as illustrated in the preceding cases, and by remarking that the serious operation of resection of the fractured ends is admissible only in a limited class of cases, such as that narrated in his paper.

ROYAL MEDICO-BOTANICAL SOCIETY.

March 16.

Dr. J. C. Cooke in the Chair.

Dr. Snow delivered a lecture on "Chloroform and other Narcotic Vapours."

He said that he considered the introduction of the use of ether vapour for the prevention of pain second only to the discovery of vaccination in the direct benefits it conferred on mankind, and in the advantages it would confer on medical science second only to the discovery of the circulation of the blood. Chloroform was in some respects an improvement over ether, which, however, was the great discovery. He described the physiological effects of chloroform, dividing them into five degrees, and said that the description was applicable to ether and some other vapours. The pulse was more or less accelerated during inhalation of either chloroform or ether, and was not diminished in power when the effects of the vapour were not carried too far, unless sickness was induced, which it was apt to be if the inhalation took place soon after a meal, and the insensibility was deep. It was not easy to lay down any rules with respect to the pupil, but the sensibility of the edge of the eyelids afforded a very good sign; when this was abolished the knife might be used without causing a flinch, but it was not always necessary to wait for this symptom.

He mentioned some cases in which ether and chloroform had enabled the surgeon to reduce old dislocations, and to reduce strangulated hernia by the taxis when otherwise an operation would have taken place.

There was on an average less mental excitement from chloroform than from ether, but the rigidity and struggling which occasionally occurred in the third degree was certainly as frequent from the former as from the latter agent, if not more so. Chloroform was eight or ten times more powerful in its effects than the same quantity of ether; and he was now in a position to explain the reason of this. He had examined a great number of volatile liquids, and he found that the power of all of them was in an inverse ratio to their solubility in water, and consequently, in the blood; that was to say, the more soluble they were the greater was the quantity required to produce a given effect. The table suspended in the room exhibited the number of these liquids in the order of their solubility, and the power of a given quantity of each of them was in the same order:—

Alcohol, Pyroxilic spirit, Acetone	Soluble in all proportions.	
Acetate of oxide of methyle	50	
Acetate of oxide of ethyle	15	
Oxide of ethyle (sulphuric ether)	10	2300
Nitrate of oxide of methyle	6	
Iodide of ethyle	1	
Chloroform	·5	144
Bromoform	About the same.	
Bichloride of carbon	·4	100
Bisulphuret of carbon	·13	50
Benzin, Metacetone	Also very sparingly soluble.	

The first column showed the quantity of liquid by measure that 100 parts of water would dissolve, the second column the quantity of vapour. There was great difficulty in ascertaining the exact solubility of the very sparingly soluble substances, but he had endeavoured to determine it by presenting them to the water in the form of vapour. Chloroform he found to be soluble in about 200 parts of water, although it had been said to require 2000. The physiological strength of the vapours he had ascertained by inhaling small quantities himself, and by placing small animals in closed but capacious glass jars with proportions of vapour determined by weighing—a mode of investigation which he believed would lead to a knowledge of the *modus operandi* of these vapours.

The three first substances in the table produced but little effect when inhaled; it was only the last and most volatile of them that would induce narcotism at all in a moderate time by all the vapour it would give off at common temperatures. The next on the list was very soluble, and produced but little effect; the next, or acetic ether, was more powerful, but less so than sulphuric ether, which in its turn was less powerful than the same quantity, by measure, of the nitrate of oxide of methyle. All the remainder were very powerful. The bichloride of carbon he had made, as directed in the last edition of "Turner's Chemistry," by

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passing chlorine gas through chloroform in the sunshine; hydrochloric acid gas was given off by substitution of chlorine with the hydrogen, while another atom of chlorine took its place, and a liquid, consisting of 2 carbon, 4 chlorine, was produced. What he had made boiled at 250°, and was at 32° as stated in the work referred to. It had a specific gravity of 1·867, had a very pleasant agreeable odour, and its vapour was between five and six times as heavy as atmospheric air. He had given it in three cases at the throwing at St. George's Hospital. It produced the same effects as chloroform, and was rather longer in producing its effects, on account of its less volatility, which might be some advantage, but not sufficient for him to recommend its general adoption. The bisulphuret of carbon, he understood, had been used in Sweden. It was very powerful. The vapour of twenty minims of it had made him nearly insensible; and three grains of it, put into 100 cubic inches of air, in which a bird was placed, rendered it nearly insensible in less than two minutes; but it had such a fetid odour that it could never be introduced in this country, even if desirable in other respects. At the conclusion, a bird was put under the influence of ether, and a guinea-pig under the influence of chloroform, and they recovered from its effects in due time. The lower animal was placed in a jar containing 300 cubic inches of air, to which seventy-four grains of chloroform were added, and complete insensibility was induced in three hundred minutes. Dr. Snow remarked that, if twenty-three sixteen grains had been introduced, the animal would not have been rendered insensible in so large a jar, but would only have become intoxicated, for it required two grains, or rather more than one cubic inch and a half of vapour, to each 100 cubic inches of air, to easily the effect beyond the second degree, however long it might be continued; and this accounted for failures in administering the chloroform, for, if from the facepiece not fitting, or from any other cause, the vapour became diluted below the strength, no amount of its consumption would produce the desired effect.

THE MEDICAL TIMES.

SATURDAY, APRIL 8, 1848.

MEDICAL MEN AND MODERN SOCIETY.

"'Tis what the happy to the unhappy owe."—Pope.

The eye of the philosopher, the politician, or the Christian, as it reviews man's social condition over the globe, meets no phenomenon so worthy of study as the popular destitution of a large fraction of the world's two most civilized and richest nations—France and England—but particularly England, the more rich and civilised of the two.

In our own country medical men are, of all others, the most competent, by knowledge and habit, to bear testimony to the nature and extent of this ghastly anomaly, and, it may be, to point the way to a remedy. The million or more who last year perished of famine in Ireland knew no worldly solace but ours—a solace not without sacrifice as shown by many a medical obituary. The gaols, with their thickly populated compartments—the workhouses and unions with their jostling crowds of paupers—the filthy garrets—the dark cellars—the damp huts—the unfurnished cabins—the unsewered alleys—these, the new and extending institutions of our land, disclose to us, almost alone, their ceaseless tales of penury—of filth—of crime—of disease and suffering—and death. Surrounded by nearly all the wealth which mankind—after forty centuries' toil and talent—have been able to accumulate—and possessing in our public men an amount of knowledge which makes small that of the wisest sages of antiquity—our humble and too often contemned mission of "peace and good will" brings us in daily contact with millions whose physical and moral destitution has no parallel in history, and which, while appearing to throw discredit on the whole scheme of creation, makes civilization itself appear like its emblem, the tree in Paradise—a curse, a scandal, and a widening infamy.

If this bitter and spreading evil were of God, as it undoubtedly is of an immature enlightenment, we should bow to the stern decree as to a calamitous and mysterious fate, and our duty would be accomplished in the humble daily task of modifying or removing, as far as science in the hands of charity may, that disease and suffering of which this social misery is, of all causes, the most prolific; but as facts and reason both impress a contrary teaching, and the very maintenance of society begins to impose an opposite practice, it well becomes our peculiar position, in the advancing movement of a more developed humanity, to make that frightful anomaly—the painful subject of our peculiar knowledge—not less known to the community, in order that we may substitute for the state empiricism of petty, tardy, inefficient, and degrading appliances, the scientific remedy of complete and comprehensive prevention. The European war of our time is against the wretchedness—or, what is more dangerous, *the wretched*—within a state, rather than against a foolish and misunderstood hostility without; and policy and diplomacy, if to continue for "the good of the country," must have for their occupation, in the future, aims and labours in kinship with this new and paramount duty and interest of the nations.

Lamartine—impressed, probably, with some such views, and which his position, indeed, must too naturally suggest—has recently claimed for himself and his friends at Paris the possession of a "new Christianity which is already dividing the world into the old parties of pagan and believer." The poet-politician knows, at all events, his want. The disease unfortunately stands self-confessed, and, like most claimants to a felicitous diagnosis, he imagines that he is in possession of more than half the remedy. We hope that he is not to be disappointed, but should have nursed a more sanguine expectation if the oracle had been less silent on the details of his revelation.

The new Christianity that is, indeed, to come, not to divide, but sway and better mankind, is not political, but social—not religious, but moral; its lessons will be for man, not nations; against poverty and disease, not sects or kings; and its apostles, instead of poets or politicians, medical men and their principles. It is for us—it is our place—to establish on the broad basis of physiological and hygienic truth the system of human happiness, to lay down through the physical laws of man those of individual right, and, what is the same thing, of national well-being; to speak on the great thesis with the certitude and power of incontrovertible science, with the sanction and authority given by Nature herself, and, by securing our code its just paramouncy, to vindicate anew the principle that self-love and social are the same, and that there is no happiness for one where there is no justice for all.

Of all men, who so often as we hear (and amid so much under our eyes that is old and faulty and incommodious and ugly and wanting) the vain cry, "Give us labour, or we starve"? Thousands are uselessly each day re-echoing around us the sound to which Paris has so recently responded by a revolution. Our inspired science, foreshadowed—nay, definitely laid down in words—what costly experience will each day too surely establish in fact. Labour is more than the condition of food: it is the condition of happiness and of human society itself. It is the law of social existence, and there is no security where it is overlooked. It is at once the natural hereditament and prerogative and happiness of man. Whatever system countenances it by unwise affluence here, or unwise penury there, is in conflict with the laws of our physical being; and, as the conflict is greater or less, so becomes the penalty paid in individual content or national security. Scientifically as well as religiously, man was made to earn his bread by the sweat of his brow, and as, of all demands made to a state formed for mutual protection, that for labour is the most righteous, so of all impolicies the most impolitic is that of its denial. It is a foolish and needless consumption without supply—an enforced expenditure without income; a creation of vice, peril, and penury where nature aimed at virtue, peace, and affluence; and all this public injury for what? For individual suffering and want. There is no such thing as a social or civic right, as there is no such thing as a wise policy, if it be not that of every man at all times to an employ by which he may live and be useful. What the right of locomotion is in nature, this is in society; and a Government that fails to provide for it in these days of increasing and almost insupportable pauperism, forgets, at no trifling peril, the first object of its existence and primary aim of its policy.

If men generally saw, as our profession forces us to see, these results of idleness which, as by a fatality, afflict both social extremes, the earnestness of our language would not be misunderstood. We hear it sometimes called a mercy that one half of society knows not how the other half lives; but the bliss of ignorance to the individual is so favourable to apathy and half-sanctioned wrong, that it would be true mercy, perhaps for each man to know thoroughly and feel acutely the evils that each other man is suffering. As "physic" is worse than thrown to the dogs administered to the languid, enervated victim of *ennui* and inaction, scarcely is it of more service to his unconsidered opposite, the half-fed, cheerless tenant of the hovel. Disease in the poor man's bed must always be fought both by us and him at a disadvantage. In him and near him the lever of medicine finds no basis for its operations. Worthy, though abased, son of the greatest of European races, we would rally in him the weakened powers of a fine nature, and we encounter inanition and hopelessness; we would chase fever, and we find him enveloped by its *fomites*; we would remove bronchitis, and in every angle of his abode there are its old and renewing agencies. We witness his suffering; we note his anguish; it is shared by his wife; it extends to his children; it reacts on ourselves; in a small nation it is one of a million parallels; and our noble science, baffled in those uses which even poor-law parsimony cannot annihilate, turns upon us with the inquiry: What but labour—grateful, fertilising labour—asked for by man's organisation, and invited by all that surrounds it, was needed to substitute for all this misery and disease, content and com-

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fort and health? Yes!—Fortune, that has made us the special witnesses of England's household sufferings—a wide-spread and Promethean agony—has placed on us the peculiar duty of pointing out the augmenting bulk and peril of the calamity, and of early crying out, and with all our power, for a remedy. It is a great mission; and, despite the heartlessness of the high or the ingratitude of the low, the neglect of those governing or the ignorant heedlessness of those governed, we will ever show to it a hearty and abiding fidelity.

THE POOR-LAW CONVENTION.

It is needless to say that we continue to feel an undiminished anxiety for all the objects for which this body was set afoot; and, as far as we can conscientiously judge, no step up to this moment has been overlooked, calculated to promote its success.

For the *present* moment there are many reasons—some of them sufficiently obvious—to explain why no public proceedings of a very important kind can be entered upon or carried out. The Home Secretary has promised to receive a deputation on an early day, but in the present position of public affairs is unable to fix the time. Although the committee have already had numerous interviews, each of considerable importance, they, of course, suggest no proportion of value to that to be attached to this conference with one of her Majesty's Ministers, and the principal poor-law commissioner. It is sincerely hoped that the excellence of the case to be submitted to Sir George Grey will secure us many of the changes we are seeking. The deputation will be accompanied, as we believe, by representatives from the College of Physicians, the College of Surgeons, the Society of Apothecaries, and the Provincial Medical and Surgical Association. A memorial excellently worded, accompanied by the suggestions for change deliberately agreed on by the committee, is ready to be submitted to the Home Secretary; and, supported by so powerful a conjunction of influence, we anxiously expect a most favourable result from the character of Sir George Grey and Mr. Buller.

Till this interview it is, of course, impossible to publish the resolutions or memorial; and, looking to the present posture of political affairs, it is clear little can well be done till after Sir George Grey has been seen.

THE IRISH MEDICAL PROFESSION AND THE GOVERNMENT.

When the members of the Irish medical profession memorialized the Government, some months ago, touching the remuneration which was offered them for attendance upon fever cases, they received an answer from the Lord Lieutenant more curt than courtly. Considering the position and the profession of the memorialists, it was scarcely what might have been expected, as there were found amongst them men who could claim relationship with some of the first families of the country, and there were none whose education and station did not entitle them to respect. If a judgment might be formed of the estimation in which their talents, influence, and labours were estimated by the Government, from its dealings with them on the occasion referred to, we should unhesitatingly conclude that it was very low. They had been required to combat disease in some of its most severe forms, and under the most appalling circumstances; they had been called to expose their lives to save those of their fellow-countrymen whose abject poverty had made them an easy prey to a direful pestilence; and for these arduous and dangerous duties they had been offered the insignificant sum of 5*s.* per day. Against this remuneration, which they considered so inadequate and degrading, the physicians and surgeons of Ireland, to the number of 1106, protested; and in their protest they employed the most respectful language, while they stated the most solemn truths. The Government not only refused to grant a more liberal salary for medical attendance on fever cases, but made known its determination in an ungracious note of four or five lines.

Since then the nations of Europe have been agitated by the most momentous political events. A tempest of popular indignation has burst over the throne of a neighbouring kingdom and laid it in ruins. Kings in some other countries have put aside the purple and the diadem, affrighted either by the dangers or the responsibilities of their station; and around the political horizon of Ireland dark clouds have gathered, which threaten to disturb the peace and order of society there. At such a period the Government expects to have the support of every well-wisher to his country, and the medical profession has appeared early at the vice-regal palace with loyal declarations. The address of the College of Surgeons, received from Lord Clarendon the following reply, which we give in full, as we have a few remarks to make upon it:—

"Mr. President and Gentlemen,—I beg you to accept my grateful acknowledgments for your address, to which I need hardly assure you that I attach the highest importance; for the circumstances in which Ireland is placed do indeed render it imperative upon all well-disposed persons fearlessly to make known their opinions. But when a body such as the College of Surgeons, representing 1000 men of high intelligence and education, but of various creeds and opinions, and whose professional duties make them acquainted with the feelings of all classes in the community, comes forward to announce its determination to support the Government in maintaining public order, society receives a fresh and most important guarantee against its enemies, who are now endeavouring to create convulsion for their own selfish ends, to seduce the people into the commission of acts which can only aggravate the sufferings with which it has been the will of Providence to afflict them, and which they have hitherto borne with such exemplary resignation.

"Although France must always have our sincerest good wishes for her prosperity and greatness, I join with you in disclaiming any desire to pronounce even an opinion upon the form of government which she may think it for her interest to adopt; and I heartily rejoice to learn from you, gentlemen, who from your position can justly claim to be exponents of the national feelings, that the attempts of certain Irishmen to induce foreign intervention in our domestic affairs meet with the disapprobation they deserve, and that the great mass of our fellow-countrymen neither desire nor would tolerate this national indignity.

"It affords me great satisfaction that you approve of the measures that it has been my duty to adopt, and which I confidently hope may be successful for maintaining the public peace, and for counteracting the attempts perseveringly made to inflame the passions of the people, already excited by suffering and incessant agitation.

"I thank you for tendering to me your assistance, which will be most valuable, and of which I gladly avail myself; for, as your peculiar pursuits afford you ample opportunities of appreciating the advantages of public peace and order, I will take the liberty of requesting that, upon the poorer classes of your fellow-countrymen, with whom you come in contact, you should inculcate your own sound and loyal opinions, teaching them that their true interests command obedience to the law, and that they will always be the first and severest sufferers from listening to the advice of false friends, who seek to turn them from the paths of industry, and to render them disorderly and disaffected."

The first thing that arrests our attention in the Lord Lieutenant's reply is the compliment which is paid to the *high intelligence and education* of the members of the Irish medical profession. In the former memorial to which reference is made, the gentlemen who signed it modestly adverted to this subject, to establish their claims for increased remuneration. This, however, availed them nothing, nor was it noticed in the official document which followed. It would be a work of supererogation to attempt to prove that which the Government here admits; but it appears to us a most singular circumstance that gentlemen of acknowledged "high intelligence and education" should be expected to labour in the Government service for the small sum of 5*s.* a day. The same endowments in any other profession are considered far more valuable, though medicine is surpassed by none in the benefits which it confers on society.

There is noticed, further, the *influence* which the members of the profession exert on the public mind. This is to be expected from their employment, as they not only are engaged in healing the sick, but in administering consolation to the afflicted. The medical attendant is usually considered the friend of the family, whether rich or poor; to him are confided secrets, and from him is sought advice. His influence, therefore, over that circle in which he moves must be great; and in a country politically agitated, as Ireland is, it might, if improperly employed, be a source of much embarrassment to the Government. To deny him, therefore, a fair remuneration for his services is not only unjust but impolitic; and, finally, the Lord Lieutenant adverts to the *labours* of Irish medical men amongst the poor and afflicted. He does this to exhort the members of the profession, not only to employ their talents to heal the sick, but their influence to direct the ignorant; and we trust and believe they will not be backward in attending to his request. Ireland has been, and is, afflicted most grievously by fever, and the duties and dangers of medical practitioners have been thus vastly augmented. It was in consequence of this that they asked of the Government a remuneration somewhat in accordance with the risk incurred by "coming in contact with the poorer classes of their fellow-countrymen." Five shillings a day is but a poor return for the employment of medical skill, the expenditure of time, and the exposure of life. We have within the last few days received a letter from a gentleman who signs himself "An Irish M.D.," in which he says:—

"Typhus fever continues its ravages amongst us. Last week has consigned two more of our body to the tomb—Dr. Cranfield, of Enniscorthy, and Dr. Baird, of Mount Mellick—both leaving widows, and both men in the prime of life. And yet the public are told by Sir P. Crampton and Dr. Corrigan we are well paid at 5*s.* per day! I will give you a scene in which I was unfortunately a principal performer. Some time since fever prevailed in my district to a fearful extent; I was obliged to be continually on horseback visiting amongst the wretched sufferers. On one

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occasion I came to a hovel containing eight in family: seven out of the eight were down in fever; the only one up was the mother. On entering this pesthouse, and asking the woman what was the matter, her reply was, 'They are all down in the room.' The room, as she termed it, was an apartment measuring 7 feet by 12. On entering this place I found them all down indeed; they were all bedded, as you would bed so many pigs, on the cold ground, with a few inches of straw under them; their covering little more than their body-clothes. I was obliged to step over them one by one to examine them, and get to the father, who was most inside of all; he was in the last stage of typhus, and died the following day (I wish I had the pleasure of Sir Philip's company on the occasion, that he might see what was to be done for 5s.). In three days after this I was laid on my own bed, delirious and in fever, where I remained for three weeks hanging over the grave, as I was told, for I was insensible the greater part of the time. The priest who visited this family was also struck down, and had a narrow escape. And still we are told by members of our own profession, medical men are well paid at 5s. per day! Let those men ask the widows and orphans, were not their husbands and fathers' lives worth more than 5s. per day?"

Such are the labours, dangers, and *rewards* of Irish medical practitioners, who are acknowledged by the Lord Lieutenant to be gentlemen of high intelligence and education. Who can help contrasting the reception of their two addresses—one asking a measure of justice for themselves, the other expressing attachment to the Government? The former was considered scarcely worthy of an answer; the latter elicited from his Excellency expressions of the highest approbation. As the talents, self-devotion, and patriotism of medical men are now acknowledged by the Government, we trust the next thing that it will do will be to increase their salaries for attendance upon fever cases. Past sufferings and present devotedness should plead on their behalf; and we are sure that the country will not murmur at a little increased expenditure to reward valuable services.

POOR-LAW REFORM.

The Home Secretary, we are glad to learn, has consented to receive a deputation from the Medical-relief Committee, and the deputation will, we understand, be supported by representatives from the Colleges of Physicians and Surgeons, the Society of Apothecaries, and from the Provincial Medical and Surgical Association. With the facts and documents in the possession of the committee, we cannot doubt that their representations must gain the attention of the right honourable baronet; and it is scarcely to be conceived that, with his eyes opened to the workings of the present system; to the contumely and neglect with which the just remonstrances of the medical officers have hitherto almost invariably been treated; to the efficient manner in which for the most part, as far as the manifold imperfections of the arrangements would admit of, they have fulfilled their engagements; to the anxious and laborious nature of their duties; to the dangers frequently encountered in the discharge of them, and to the wretchedly inadequate salaries with which their services are recompensed,—it is scarcely to be conceived that, with these circumstances brought fairly before him, a gentleman of character, such as Sir George Grey undoubtedly is, can refuse to redress the grievances so deeply felt by a meritorious body of public servants like the union medical officers.

In one point of view the defeat of Lord Ashley's resolutions may, indeed, work well for the medical department of poor-law relief; the necessity for some medical inspection seems to have been admitted by Mr. Buller; and should the further examination of the question by the Government authorities tend to deepen the impression, so as ultimately to place this department under the supervision of a qualified medical commissioner, releasing at the same time assistant-commissioners, boards of guardians, relieving officers, *et id genus omne*, from the superintendence and management of duties, the faithful discharge of which they can neither appreciate nor understand, good will ultimately work out of evil, and Lord Ashley, though now not successful, may yet witness the fulfilment of his benevolent intentions, in the consequent benefit of the sick poor on even a more extended scale than he had before felt himself warranted in anticipating.—*Provincial Medical and Surgical Journal.*

THE PROJECTED CHARTER OF THE ROYAL COLLEGE OF PHYSICIANS, LONDON.

After the preamble it is proposed—

1. That the corporation shall henceforth be styled "The Royal College of Physicians in England."

2. That it shall consist of fellows and associates, including a president and council, four vice-presidents, four censors, a treasurer, and a registrar.

3. That all the present licentiates of the corporation shall be associates.

4. That each of the present extra-licentiates shall be admitted an associate of the corporation, on the production to the censors of testimonials of character and professional qualification which shall be satisfactory to them, and on passing such examination before them as shall be required by, and shall be satisfactory to, the censors, and on his paying to the corporation a fee of £25, exclusive of the stamp duty.

5. That every person now practising as a physician in England or Wales, and who shall have taken the degree of doctor in medicine at any university in the United Kingdom of Great Britain and Ireland, after regular examination (previously to the 1st day of January, ——), and who shall have attained the age of thirty years, and who shall not be engaged in the practice of pharmacy, shall, at any time within twelve calendar months from the acceptance of these letters patent by the corporation, in the manner mentioned in the act of Parliament hereinbefore stated to have been passed in the present year, be admitted an associate of the corporation, without any examination, on the production to the censors of his diploma, and of such testimonials of character and professional qualifications as shall be satisfactory to the censors; and on his proving himself to be of age, and on his assuring the censors that he is not engaged in pharmacy, and on his paying to the corporation a fee of £25, exclusive of the stamp duty.

6. That any person who, after examination, shall have taken a degree in medicine at any university in the United Kingdom of Great Britain and Ireland, or from any foreign university, to be from time to time recognised by the corporation, and who shall have attained the age of twenty-six years, and shall not be engaged in the practice of pharmacy, and shall have gone through such course of studies, and who shall have passed examination before the censors, and complied with such other regulations as are or shall be required by the by-laws of the corporation, shall be entitled to become an associate without being subject to any other election.

7. That there shall be 200 fellows, and that such number shall be hereafter regulated in such manner as hereinafter stated.

8. That the present fellows shall continue to be fellows, and that previously to the 25th day of June, ——, a meeting, or several meetings, of the fellows and associates shall be holden, at which so many fellows as will make up the number to 200 shall be elected, and that such fellows shall be elected out of the list of associates who are hereby admitted, or shall hereafter be admitted, associates, all of whom shall be eligible to be fellows; and that, on the 25th day of June, ——, and on the same day in every subsequent year, (except when the same shall fall on a Sunday, and then on the 26th day of June), a meeting shall be holden of the fellows and associates, for filling up vacancies which shall have occurred in the fellowship since the last election of fellows, so as to make up the number of fellows to 200; and that if on the day of holding any such meeting the number of fellows and associates shall exceed the number of fellows and associates on the 5th day of June, ——, then so many additional fellows shall be elected at such meeting as will make up the entire number to a number bearing the same proportion to the number of fellows and associates for the time being as the said number of 200 fellows shall have borne to the existing number of fellows and associates on the 12th day of June, ——, or as near thereto as circumstances will permit, the new fellows being always elected out of the list of associates for the time being of the corporation; but no new fellow shall be elected so long as the entire number of fellows shall bear a larger proportion to the number of fellows and associates for the time being than the said number of 200 fellows shall have borne to the existing number of fellows and associates on the 25th day of June, ——.

9. That the fellows and associates shall have an equal right of voting in the election of fellows; and the fellows to be elected shall be elected by ballot, either by lists or otherwise, as the corporation shall from time to time determine by their by-laws.

10. That if it shall at any time hereafter appear that any present or future fellow or associate shall have obtained admission by any fraud, false statement, or imposition, or that he shall have violated any by-law, rule, or regulation, then, and after previous notice to and hearing of such associate or fellow as under the circumstances the president and censors shall think proper, it shall be lawful for a majority of the fellows present at a meeting of the fellows to declare such fellow or associate to be expelled from the corporation; and thereupon every such associate or fellow shall cease to be an associate, or an associate and fellow, of the corporation accordingly; and all the privileges granted to such associate, or associate and fellow, shall cease and be extinguished.

11. That the present president shall continue to be president until a new president shall be actually appointed in his place; and that upon the day next after Palm Sunday in the year ——, and on the same day in every subsequent year, a new president shall be elected at a meeting of the fellows; but the retiring president shall always be capable of being re-elected; and every president shall remain in office until the actual election of the new president.

12. That at the meeting of the fellows held for the election of the new president, the council shall, out of the first fifty fellows in the list of fellows, nominate some one of such fifty to be proposed to the fellows, to be by them elected president; but if the fellow so nominated shall not be elected president by a majority of the fellows present at such meeting, another fellow shall in like manner be nominated by the council, out of the first fifty fellows in the list of fellows to be proposed as aforesaid, and so on, until a president shall have been elected. The election of president shall be taken by ballot; and in case of any difference in the council, concerning their selection of a president, the president nominated by the majority shall be proposed to the fellows; and in case of an equality of votes in the council, the senior fellow so nominated shall be proposed.

13. That in case of the death or resignation of the president, a new president shall with all convenient speed be elected in his place, such election to be made in all respects in the same manner as is provided by the last preceding regulation.

14. That at any time before or at the meeting of the fellows, after the meeting of the fellows at which the president shall have been elected, the president so elected shall appoint four fellows out of the first fifty on the list of fellows, which four fellows shall be called vice-presidents, any one of

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whom may act as president in the temporary absence of the president, upon his expressing a desire to such effect to any vice-president, in writing, or to the registrar; and in case of the death of the president, the first vice-president for the time being in the list of vice-presidents shall act as president until a president shall have been appointed; and the present president shall, at the meeting of the fellows next after the granting of these letters patent, appoint four vice-presidents for the purposes aforesaid.

15. That the vice-presidents shall cease to be such when a new president shall have been appointed in the place of the president by whom they were nominated.

16. That there shall be sixteen fellows on the council.

17. That the present council shall continue to be the council of the corporation until a new council shall have been actually elected in their place; and that on the 22nd day of December next, four fellows shall be elected to make up the number of the council to sixteen; and that on the 22nd day of December, ——, and on the same day in every year (except when the same shall fall on a Sunday, and then on the 23rd day of December), four of the council shall go out of office, and four fellows shall be elected of the council; but the fellows going out of office shall not be re-eligible until they have been one year out of office; and the fellows to be elected shall remain in office until others shall have been actually elected in their place, and that, on the same day, other fellows shall be elected to the council, to fill up vacancies occasioned by death or resignation since the last election.

18. That the council shall be elected by the fellows out of their own body by ballot, either by list or otherwise, as shall be determined by the by-laws.

19. That, in addition to the sixteen fellows so elected, the president, censors, and treasurer shall, *ex officio*, be of the council.

20. That the present censors shall continue to be the censors until new ones shall have been actually elected in their place; and that on the day after Palm Sunday in the year ——, and on the same day in every subsequent year, four new censors shall be elected; and censors going out of office shall be re-eligible; and the censors to be elected shall remain in office until other censors shall actually have been elected in their place.

21. That on the day for electing censors the council shall nominate four of the fellows to be proposed to the fellows, to be by them elected censors; but if any fellow or fellows so nominated shall not be elected a censor or censors by a majority of the fellows present at the meeting, another fellow or fellows shall be nominated at such meeting by the council, to be proposed by the fellows, and so on, until four censors shall have been elected. The election shall be taken by ballot. In case of a difference in the council concerning the nomination of censors, the censors nominated by the majority shall be proposed to the fellows; and in case of an equality of votes in the council, the president shall have a casting vote.

22. That in case of the death or resignation of either of the censors, a new censor shall be elected in his place, such election to be made in the same manner as is provided by the last regulation.

23. That the present treasurer of the corporation shall continue to be treasurer until a new treasurer shall be actually elected in his place; and that on the day after Palm Sunday in the year ——, and on the same day in every subsequent year, the president shall nominate one of the fellows, to be elected by the fellows as treasurer, in the same manner as is before appointed for the election of censors by the fellows; and the treasurer shall be re-eligible. And every treasurer shall remain in office until a new treasurer shall be actually elected in his place.

24. That, in case of the death or resignation of the treasurer for the time being, a new one shall be elected in his place, such election to be made in all respects in the same manner as is provided by the last preceding regulation.

25. That the present registrar shall continue to be the registrar until a new registrar shall be actually elected in his place, on the day after Palm Sunday in the year ——, and the election to be conducted the same as for the censors.

26. That, in case of the death or resignation of the registrar, a new one shall be elected in his place, in the same manner as is provided by the last regulation.

27. That the president, council, censors, treasurer, and registrar shall be considered as remaining in office during the whole of the day on which their successors shall be elected.

28. That the corporation may, by a by-law, change the day appointed for any election to take place; and if, from any cause, any election shall not take place on the day appointed, the same shall take place on some other day appointed for that purpose.

29. That proxies shall not be allowed at any election.

The duties, powers, and privileges of the respective offices shall, except so far as the same are now varied, and subject to any variations which may be made by the corporation, continue to be the same as the duties, powers, and privileges of the same offices respectively now are.

It shall be lawful for the corporation to admit as an associate any person who shall have exceeded the age of forty years, on the production to the censors of such testimonials of professional education as shall be satisfactory to them, and on passing the usual examination; and after his admission as an associate be entitled to have and use the degree of doctor of medicine.

Dr. Hawkins has addressed a letter to Dr. Streeten, mentioning that this proposed charter is the form proposed in 1843, and that several alterations have been since suggested and adopted. The limit for graduation fixed for Jan. 1, 1842, is one of these—a later year being proposed. The new charter is yet under discussion.

MEMORIAL TO THE HOME SECRETARY.

(Copy.)

To the Right Honourable Sir George Grey, Baronet, her Majesty's Principal Secretary of State for the Home Department,

Showeth,

That your memorialists, being legally qualified members of the medical profession, have read with great attention and approbation a paper entitled "Principles of a General Measure for Medical Reform," which have been unanimously agreed upon as the result of several conferences held by a committee representing the different sections of the medical profession, and which your memorialists are informed have been submitted to the head of the Home Department.

The undersigned, after due consideration, are of opinion that a legislative measure founded on those principles will be eminently conducive to the public welfare, and will be generally satisfactory to the profession itself. The undersigned, therefore, pray that her Majesty's Government will adopt these principles, and promote the completion of them in due form, as an act of the Legislature.

Thomas Smith, Crawley.
Edward Boulger, Bletchingley.
William Henry Sargant, Bletchingley.
John Steele, Reigate.
George Hampton, Reigate.
Peter Martin, Reigate.
Joseph Sargant, Reigate.
Thomas Martin, Reigate.

DR. BERNCASTLE.

[To the Editor of the Medical Times.]

Croydon, March 29.

Sir,—The following memorial having been forwarded to me by the union surgeons of Cheltenham, requesting me to give it publicity throughout the profession, I shall feel obliged by your giving it an early insertion in your valuable periodical.

I have the honour to remain, Sir, your most obedient servant,

J. Berncastle, M.D.

(Copy.)

"To Dr. Berncastle, Surgeon to the Croydon Union.

"We, the undersigned medical officers to the Cheltenham Union, beg to offer you our sincere and heartfelt condolence on the late ill treatment you have received from the board of guardians of the Croydon Union, who, after refusing the unfortunate woman Hopkins parochial relief (and, as we consider, most unjustly), with the intention of disguising their own censurable conduct, endeavour to pass it over by throwing the onus of the blame upon you.

"On a careful review of the entire circumstances of the case, and duly considering the positive orders of the relieving officer, that you were not to consider Hopkins as a patient of the union, we cannot but agree that you were entirely free from censure, and, in fact, treated her with the greatest kindness and humanity.

"W. P. Brookes, M.D., &c., surgeon to District No. 2.
"William Gregory, surgeon to District No. 3.
"William Dalton, surgeon to District No. 4.
"Frederick Hyett, surgeon to District No. 1."

POOR-LAW MEDICAL REMUNERATION.

[To the Editor of the Medical Times.]

Sir,—Some months ago you were good enough to insert in the *Medical Times* a letter of mine, accompanied with an expression of hearty concurrence in the objects of the "Convention of Poor-law Surgeons," signed by the medical officers of the Loddon and Clavering, and Wangford Unions.

I have now the pleasure of stating that the board of guardians of the Loddon and Clavering Union, on the 27th ult., raised the sum to be divided among the district medical officers from £176. 5s. 4d. to £210. This act of justice, conceded in so good a spirit, deserves the thanks of the profession; and, although even now the payment is below the onerousness of our duties, it is certainly an approximation to our just claim.

I cannot but think that the publicity given to our complaints by the Convention has been useful, and will ultimately secure us an adequate remuneration. It is a universal truth that you must ask in order to receive. I beg to renew my grateful acknowledgments to that meritorious body.

I am, Sir, faithfully yours,
Bungay, April 3. Nath. B. Fisher.

LIFE-ASSURANCE OFFICES, AND FEES TO MEDICAL MEN.

[To the Editor of the Medical Times.]

Crail, March 29.

Sir,—I am glad to observe that the subject of fees for medical reports to queries by insurance companies has been brought under the notice of the profession by a correspondence in your last publication between Dr. M'Culloch, 2nd Life Guards, and the secretary of the Experience Life-assurance Company.

I annex copies of a correspondence on that subject I had several years ago with the manager of the Standard Life-assurance Company, and of a "resolution adopted by the life-assurance offices of Edinburgh in reference to the payment of fees to medical practitioners." If you think the publication of the latter, with the relative correspondence, will forward the agitation for the settlement of this question, of so much importance to the profession, you are at perfect liberty to do so.

I am, Sir, your obedient servant,
W. Bonthrone, M.D.

"Crail, April 5, 1843.

"Sir,—In compliance with your request I send herewith my report regarding the state of health of Mr. J. B., jun. I beg to intimate that I expect you will transmit a fee to me for the same.

"I am, Sir, yours respectfully,
"W. Bonthrone.

"The Manager of the Standard Life-assurance Company, 3, George-street, Edinburgh."

"Standard Life-assurance Company's Office, 3, George-street, Edinburgh, April 16, 1843.

"Sir,—I am favoured with your certificate as

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medical referee of Mr. J. B., jun., and am sorry I cannot comply with your request that I should transmit a fee. Where a party refers to his medical attendant in assuring his life, we hold that the medical gentleman reports at *his* request, and he must, therefore, be the party to defray the expense. I am aware that the subject is one as to which the medical and the assurance offices are not agreed, and by perusing the enclosed you will perceive the position which this company has taken along with the other Scottish offices.

"I am, Sir, your most obedient servant,

"WILL. THO. THOMSON, Manager.

"W. Bonthrone, Esq., Surgeon, Crail."

"Resolution adopted by the Life-assurance Offices of Edinburgh in reference to the Payment of Fees to Medical Practitioners.—Edinburgh, March 12, 1840.

"The dissatisfaction which some medical practitioners have expressed when called upon to give reports as to the health of their patients, without, at the same time, receiving a fee, has been frequently the subject of regret and annoyance to the life-assurance offices.

"It has been their anxious desire to remove that dissatisfaction; and they have often met to discuss the subject, and endeavoured to discover some way of meeting the wishes of the medical profession, without endangering their own position as insurers.

"That the medical attendant of a party to be insured ought to receive some remuneration for the information given by him, the offices have no difficulty in admitting; and they have explained this to all parties making proposals to them; but unfortunately the offices can neither pay this fee, nor be the medium through which it is paid, without altering their situation, and materially affecting the character of the evidence upon which the whole transaction depends.

"On the one hand, unless it were made an imperative rule (admitting of no exception), that every party, at the time of his making a proposal, should deposit the medical fee, the object desired could not be accomplished, because there can be little doubt that, if the payment were at all optional, parties would, in the great majority of cases, act as they at present do; while, on the other hand, by invariably exacting a fee, the offices would incur the risk of being considered the parties by whom the medical men were employed and paid.

"The life-assurance offices in Edinburgh, after again most deliberately considering and discussing this subject, have unanimously come to the resolution of adhering to the principle laid down by them on October 8, 1834."

"Crail, April 22, 1843.

"SIR,—I received your letter of date 15th instant, wherein you state, where a party refers to his medical attendant in assuring his life, you hold that the medical gentlemen reports at his request, and he must, therefore, be the party to defray the expense.

"I have to intimate my belief that, if the party referred to had employed me, he would have willingly paid me, but your having been my employer, and requested even a confidential opinion, which was not to be shown to him, and which I conscientiously supplied, I hold my claim is against you; it amounts to a guinea, and, if not remitted to me, it is my intention to take steps to recover it.

"The 'resolution adopted by the life-assurance offices, Edinburgh, in reference to the payment of fees to medical practitioners,' of date 12th March, 1840, of which you sent me a copy, has surprised me a good deal, and I think ought to be brought under the notice of the medical profession, which I will attempt doing by having it published in some of the weekly medical papers. The medical profession will, I trust, follow the example of the life-assurance offices, and look after their own interests. They, in my opinion, ought to decline answering any questions till a fee is paid.

"I am, Sir, yours respectfully,

"W. BONTHRONE.

"To Wm. T. Thomson, Esq.,
Standard Life-assurance Office, Edinburgh."

"MEMORANDUM, May 4, 1843.—Was at Standard Life-assurance Office, Edinburgh, with D. A. L., Esq. Had a conversation with Mr. Thomson regarding the payment of my fee, when he expressed a wish I would raise an action at law for payment of it, as it would enable the Edinburgh assurance offices to have the matter properly discussed in court. Resolved rather to want my guinea than engage in a lawsuit with ten insurance companies.

"W. B."

SOUND VISIBLE.

[To the Editor of the Medical Times.]

SIR,—The following paragraph has been "going the rounds" of the newspapers, and has likewise appeared in some journals more specially devoted to scientific subjects. I think it first appeared in the *Literary Gazette*. With your permission I will make a few remarks on the subject, as it seems to me the writer has misapprehended what sound really is. The paragraph is headed "Sound Visible," and thus proceeds:—"In this age of wonders, what will the world think when we assure it that a method has been discovered and matured by which sound will be made visible to the human eye, its various forms and waves demonstrated to sight, and the power to discriminate between the tones of one musical instrument and another be as complete as to observe the action of water when disturbed by any material cause. The experiments, we believe, are likely to be, ere long, repeated in the Royal Society. The exhibition of effects on fine sand has probably led to this astonishing issue."

Now, Sir, I believe that there is no such entity as sound independent of the ear, or special sense of hearing; and what is about to be demonstrated will be the motion of those impulses or vibrations which, arriving at the ear, produce the sensation of sound, or that particular state or condition of the labyrinthic nervous development and brain which we call sound. It is easy to conceive that delicate impulses and vibrations may be made manifest to the sight by an equally delicate mechanical contrivance, and that the different tones of various instruments may be discriminated by such apparatus. But still this is not rendering "sound visible," nor is it demonstrating the effects of sound, as one of the papers containing the paragraph suggested. The effects of sound are feelings which surely cannot be made visible by any mechanical contrivance.

It is neither sound, nor the effect of sound, but a cause of sound, which may be made visible. But in what manner physical effects—namely, impulses or vibrations—merge into mental perceptions science cannot explain.

I am, Sir, your obedient servant,

St. Asaph, March 14. J. W. MOSES, M.D.

GOSSIP OF THE WEEK.

WAR-OFFICE, March 31.—44th Foot: Surgeon Daniel Armstrong, from half-pay of the 84th Foot, to be Surgeon.

ROYAL COLLEGE OF SURGEONS. — Gentlemen admitted members on Friday, March 31:—J. Westwood, J. Hebden, J. Baker, G. Walker, E. D. Silver, R. S. Ryan, C. C. Bramwell, W. P. Roberts, F. Pearson, W. R. Raby, and N. Bethune.

APOTHECARIES' HALL.—Gentlemen admitted on Thursday, March 30:—John Mussendine Camplin, Islington; John Farmery Ollard, Wisbeach; William Mubrie Fairbrother, East Dereham, Norfolk.

ST. THOMAS'S HOSPITAL.—Mr. James Dixon has been appointed assistant surgeon to this hospital, in the place of Mr. B. Travers, jun., resigned.

COX V. THE MIDLAND RAILWAY COMPANY.—This was an action of debt, brought by Mr. Sands Cox, professor of surgery at Queen's College, Birmingham, against the Midland Railway Company, to recover £50 for services performed. The defendants pleaded that they were not indebted, and on this the issue was joined. Mr. Whitehurst, Q.C., with whom was Mr. Hayes, for the plaintiff, opened the case. It was one of considerable importance, both to the medical profession and the public. The debt was incurred under the following circumstances:—It appeared that in the month of February, 1847, a poor man, named Joseph Higgins, had been at a sale near the Whitacre station, where he had purchased a table. He being a poor man, and having only a short distance to go, consented to go on a truck, and, while he was endeavouring to get on, Alcock, the guard, gave the signal for starting, and the train went on, throwing Higgins down, so that the wheels passed over him, and fractured one of his thighs. The train was instantly stopped, and Mr. Davies, of Coleshill, the surgeon to the company, was sent for, and Higgins was taken to the Railway Inn, at Whitacre. Mr. Davies' father had in the meantime been sent for, along with two other surgeons; but, the case being one of great danger and complexity, a consultation resulted in its being determined to send for an eminent hospital surgeon, and it was resolved to have Dr. Cox from Birmingham. Accordingly, it was attempted to communicate by telegraph, in order that the railway company should send anybody they pleased; but the telegraph would not work, and accordingly the mail-train was stopped, and Mr. Davies, jun., proceeded to Birmingham, and informed Mr. Needham, the company's manager, and Mr. Wakely, of the accident, and of the necessity of having Mr. Cox's services immediately. Mr. Needham approved of this course, requesting that everything possible should be done for the man; and accordingly, between two and three o'clock in the morning, Mr. Cox was got out of bed, a carriage was attached by order of the manager to a luggage-train, and about six o'clock in the morning Mr. Cox performed amputation with great success. Higgins continued in considerable danger for six or eight weeks, and during that time he was twice visited by Mr. Cox, for which he charged three guineas each visit, and he charged twenty guineas for the operation. It was to recover this sum that the present action was brought, the company refusing to liquidate the claim on the ground that they had not employed him. Higgins had raised an action to obtain compensation for the injuries he had received; but it was settled out of court, the company agreeing to pay him £150, exclusive (as it was contended) of medical attendance and inn charges, as he had not ordered them. Mr. Whitehurst remarked rather strongly on what he characterized as the shabby, mean, and most ungenerous nature of the company's procedure in refusing to liquidate this claim.—Joseph Butler, a labourer, gave evidence of the occurrence of the accident; and Messrs. Davies also were examined.—On the plaintiff's case being concluded, his lordship inquired whether the defendants (for whom were Mr. Humfrey, Q.C., and Mr. Macaulay) intended to call witnesses, and, on receiving an answer in the negative, it was suggested and agreed to that a verdict should be given for the plaintiff for £27. 6s., with leave for the defendants to move to enter a nonsuit, if the court above should be of opinion that the judge ought to have directed a nonsuit.

DAVIES AND ANOTHER v. THE MIDLAND RAILWAY COMPANY.—This was an action brought by Mr. Davies and Son, surgeons, of Coleshill, to recover a sum of £37. 8s. 6d. for professional services. The case was precisely similar to the preceding action, and arose out of the same transaction. His lordship suggested that, as it was contended for the company that no servant of theirs had authority to order medical attendance in cases of accident, they ought to make it publicly known. A verdict was taken for the amount in a similar manner.

The *Observer* of Sunday last contains a statement that rumours are in circulation in the county of Lincoln that Dr. Willis, formerly one of the physicians of George III., who died in 1835, leaving a fortune of £300,000, was poisoned. It is said that a servant of the deceased recently confessed, on his deathbed, that he poisoned the doctor.

OBITUARY.—March 29, at his residence, Edgware-road, James Briggs, Esq., member of Council of the Royal College of Surgeons, and senior surgeon of the Lock Hospital.—March 12, in Chester, Edward Hogg, Esq., M.D., in his 66th year. Dr. Hogg formerly resided at Hendon, in Middlesex, where he was highly esteemed in his profession, and endeared to a large circle of friends by the urbanity of manner and tender sympathies for all suffering humanity within the sphere of his reach and usefulness. Subsequently he travelled over much of Europe and in Asia, made considerable antiquarian researches, and eventually gave to the world some interesting volumes, entitled "Dr. Hogg's Visit to Alexandria,

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Damascus, and Jerusalem." He died, as he had lived, universally esteemed, as he is now lamented, by all who knew him—most of all by his bereaved widow, kindred, and immediate friends. —March 7, in Plymouth Grove, aged 74 years, James Davenport Hulme, Esq., M.D., of Ball Haye, in the county of Stafford.—March 4, at Clifden, county of Galway, of fever, C. Bodkin, Esq., M.R.C.S.—March 4, at Upper Merrion-street, Dublin, Percival Hunt, M.D., fellow and vice-president of the College of Physicians, Dublin.—March 9, at Upper Merrion-street, Dublin, Percival Banks, M.D.—March 18, at Dublin, aged 82, Alexander Jackson, M.D., physician to the Richmond Lunatic Asylum.—March 22, aged 40, of fever, Richard Cranfield, M.D., medical attendant of the Fever Hospital, Dispensary, and Workhouse, Enniscorthy. —Recently, at Tulla, county of Clare, of fever, James Fraser, M.D., physician to the Tulla Dispensary.

MORTALITY TABLE.

For the Week ending Saturday, April 1, 1848.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1294	1107
SPECIFIED CAUSES...	1293	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	289	184
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	52	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	151	138
Diseases of the Lungs, and of the other Organs of Respiration	191	225
Diseases of the Heart and Blood-vessels.....	49	39
Diseases of the Stomach, Liver, and other organs of Digestion	61	62
Diseases of the Kidneys, &c.	15	9
Childbirth, Diseases of the Uterus, &c	6	13
Rheumatism, Diseases of the Bones, Joints, &c. ...	8	8
Diseases of the Skin, Cellular Tissue, &c.	1	1
Old Age.....	45	79
Violence, Privation, Cold, and Intemperance.....	96	31

NOTICE.

SUBSCRIBERS IN ARREAR are respectfully requested, in conformity with the terms of their subscriptions, at once to forward their remittances to the OFFICE.

☞ The subscription for the stamped edition of the *Medical Times* is 15*s.* for the half-year, and £1. 5*s.* for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfrae.

TO CORRESPONDENTS.

"Anti-quack."—The prescription is evidently the production of an uneducated man; the jumble of ingredients would preclude their acting with any certainty in disease. We know of no remedy for the evil.

"Indoctus."—Spoons in general are not sufficiently accurate for measuring medicine when great care is required. A graduated measure will prevent mistakes.

"Henry."—The tincture is not injured by keeping, though it deposits a mucilaginous sediment.

"Dignitas."—It would be improper to discuss the matter in a medical journal.

"Mem."—The qualification will be recognised.

"An Occasional Scribe."—We cannot spare the time to make all the corrections which are needed. The manuscript is left at the office as requested.

"Justus, West-end."—A line addressed to the doctor privately would answer the end better than publishing the letter sent to us.

"Philosophos."—The work is replete with information, and is published in a cheap form.

"Guyensis."—Neither of the examining bodies in London touch upon the subject in testing the acquirements of a candidate.

"Dr. Edward Mead."—1. No. 2. By application to the secretary of the College.

"A Friend."—The resolutions were unanimously adopted by the committee.

"M. J., Leeds."—The sum we cannot exactly state; probably about £160.

"A Young Medical Practitioner."—The office is considered safe, and is one of the few which pays a fee to the surgeon, when required to certify to the state of health of a person wishing to insure.

"Chirurgus, 1828."—A printed paper containing full information will be furnished gratuitously on application at the College of Physicians.

"A Country Subscriber."—The analysis is correct.

"Galen."—The practice would be unscientific and injurious.

"Bookworm."—It is out of print, but there is a copy of it in the British Museum and the College of Surgeons.

"Adolescens."—The books are mere quack advertisements, and the list of cases is got up for a particular purpose. Obtain the opinion of an educated practitioner.

"A Constant Reader, Maidstone."—The subject should be laid before the poor-law commissioners, who have power to remedy the evil.

"A Student of Trinity College, Dublin."—Both examinations are required.

"Veritas" must forward his real name and address before his letter can be published.

"X. Y. Z."—The fee can be recovered in the County Court.

"A Member of the College and Hall."—1. The Charter is not yet published. 2. It is not illegal for a licentiate to take the title of surgeon.

"Novice."—The degree is respectable, but we would recommend our correspondent, as he is anxious for a title, to obtain one from a British university.

"Mr. Greenwood."—No.

"Bolus."—Some druggists make the ext. colocynth comp. from formulæ of their own, less expensive than the preparation of the "Pharmacopœia."—The specimen forwarded is not correctly prepared.

"Scotus."—The licence of the English Apothecaries' Company would be necessary for medical appointments under the poor-law. The diploma of the Edinburgh College of Surgeons will be received.

"Tyro."—Fownes' Manual is a useful work.

"Operator."—The specimen of chloroform sent appears to be genuine.

"A Five Years' Subscriber."—The occurrence of measles after puberty is not such an uncommon event as our correspondent supposes.

"A Country Surgeon."—It is impossible for us to form an opinion from mere verbal description. It may have been a fracture between the coraco-clavicular ligaments, when there is rarely any displacement of either fragment; when, however, this does occur, it is commonly confined to a slight alteration in the direction of the bone.

"A Subscriber, Cork."—Communication received.

"F. G., Bedford."—1. The powdered ergot is very liable to spoil by keeping. 2. It occasionally exerts a powerful influence on the child when it does not appear to act upon the uterus.

"Inquirer."—The system of medical education in the United States is similar to that adopted in England. A diploma, however, can be obtained by a shorter course of study, and at much less expense. We do not think that the "private preceptors" of America are similar to our English "grinders," as the former are held in considerable estimation by the profession.

"Scalpel" has not sufficiently dissected his subject.

"Lex Medica."—Communication received, which will be noticed next week.

"Dr. Royle, Ipswich," on Medical Reform, received.

"Mr. Garlike" on the Use of Nitrate of Silver in Dysentery, received.

"An Old Country Apothecary prior to the Act of 1815" is "truly happy to learn, by the *Medical Times* of April 1, that the Society of Apothecaries has declined instituting any further legal proceedings against quacks of every grade. I find the company are looking after the pence, and thus leaving their dirty work of being informer to be done by their licentiates! A pretty state of things, truly! I do not think any act can annihilate quack medicines! Believe me, it will be no easy matter to obtain a fresh act of Parliament! How much longer will the company of Union-street enjoy their golden harvest?"

"A Medical Student, St. George's."—Ordinary candidates pay for the diploma of the Edinburgh College of Surgeons the sum of £7. 5*s.*

"M. G."—The pay of a surgeon in the East India Company's service is equal to that of a captain; of an assistant-surgeon to that of a lieutenant.

"Paracelsus."—A solution of the colouring matter in water or alcohol is of a bright yellow colour. Sulphuric acid renders it first blue and then lilac. Nitric acid gives it a green tint.

"M. A., Chelsea," writes us as follows, in reference to the action of prussic acid on a dog:—"Having determined to destroy a dog which I possessed, I administered to him a dram of prussic acid, purchased of a respectable chemist. In half a minute he fell down on his side, and, supposing he was nearly dead, I threw him into the Thames. Immediately he was plunged into the water he recovered sufficiently to swim to shore, and afterwards ran home. The whole of the acid he took, but I am not certain as to its exact strength. Does not this go to prove the value of cold water in cases of poisoning by prussic acid, when the patient is seen immediately after?"

"Mr. J. E. Lindsay."—The request shall be attended to.

"Spec."—Apply to the secretary of the Apothecaries' Company.

"Mr. Evan Thomas, Cumberland Infirmary, Carlisle."—Communications received.

"A Subscriber."—"Morgan's Lectures," published by Mr. Highley, Fleet-street; "Yearsley on Deafness," published by Mr. Churchill.

"Dr. Daunt, Campinas, Brazil."—Communications received.

"A Devonshire Student."—Consult the Students' Number of the *Medical Times*, where all the information required on the first four questions is given. Question 5. No.

"Mr. Thomas Allen, Spilsby."—We do not prescribe in our columns.

"Apes."—Dr. James Johnson's work.

"Mr. Sands Cox, Temple-row, Birmingham."—Communication received.

"Mr. E. B. Phillips, Hales Owen."—The coroner certainly acted very stupidly, and our correspondent ought to receive the usual fee, to which he is entitled.

"A Well-wisher to a Good Cause," convinced that no profession ranks higher in usefulness and dignity than that of medicine, is anxious that the advantage of a good liberal education, as a basis of professional knowledge, should be an indispensable requisite for the exercise of medicine in either of its divisions. He considers that every young man should be subjected to a literary and scientific test before entering upon his special education. The examination (as we understand his letter) should take place at an early period, since a three years' apprenticeship is a part of his plan. This he thinks is necessary in order to an intimate acquaintance with the properties, doses, action, &c., and to form an introduction to the more extended pursuits of the medical school. He believes that this threefold preparation would secure a supply of men who would be able to maintain the medical profession in a high position in public estimation.

"Sphinx."—We think the advertisement quite as exceptionable as that of the Quackley operations.

"A Looker-on."—The Poor-law Medical Committee require no defence against attacks from such a quarter.

"Mr. F. S. Garlick" thus remarks on Lord Ashley's midwifery clause:—"It is tantamount to a declaration that the services of the medical officer shall be secured in those cases only in which a certificate from a former attendant shall have intimated that, on a prior occasion, there were circumstances of difficulty or danger. The effect of this resolution, therefore, will be to encourage the practice of midwifery by females, or other uneducated persons—a course I cannot too strongly condemn. In France women are properly educated in this branch, and may be fully competent to the management of all ordinary cases; but in this country no such education is conferred, and I feel assured that, if this clause stand as it is, poor lying-in women will be left in a deplorable condition. No person, male or female, should be permitted to meddle with what they do not understand, especially where life is concerned. No person, if we would do justice to our patient, should practise midwifery without having first acquired an accurate knowledge of anatomy—of the structure of the female in particular—and without having obtained a well-grounded understanding of the whole subject. In some instances, at least, the burden of medical relief to the poor falls with a heavy hand on the medical officer. I cannot conceive a greater injustice than that a medical officer should have to supply attendance, drugs, leeches, and all other appliances for the miserable pittance he now receives, and that, too, from the funds of a large union well able to afford adequate and befitting remuneration."

Letters and Communications have also been received from Anti-quack; Indoctus; Henry; Dignitas; Mem.; An Occasional Scribe; Justus, West-end; Philosophos; Guyensis; Dr. Ed. Mead; A Friend; M. J., Leeds; A Young Medical Practitioner; Chirurgus; A Country Subscriber; Galen; Bookworm; Adolescens; A Constant Reader, Maidstone; A Student of Trinity College, Dublin; Veritas; X. Y. Z.; A Member of the College and Hall; Novice; Mr. Greenwood; Bolus; Scotus; Tyro; Operator; A Five Years' Subscriber; A Country Surgeon; A Subscriber, Cork; F. G., Bedford; Inquirer; Scalpel; Mr. Jones, Melford; Lex Medica; Dr. Royle, Ipswich; Mr. Garlike; An Old Country Apothecary prior to the Act of 1815; A Medical Student, St. George's; M. G.; Paracelsus; M. A., Chelsea; Mr. J. E. Lindsay; Spec; Mr. Evan Thomas, Cumberland Infirmary, Carlisle; A Subscriber; Dr. Daunt, city of Campinas, Brazil; A Devonshire Student; Mr. Thomas Allen, Spilsby; Apes; Mr. Sands Cox, Temple-row, Birmingham; Mr. E. B. Phillips, Hales Owen; A Well-wisher to a Good Cause; Sphinx; A Looker-on; Mr. F. S. Garlick; Mr. Dixon, Frodsham; Dr Norton, Southampton; Mr. Charles, Colwyn; Dr. Todd, Dysart; Mr. Moore, West Coker; Mr. Hunt, Hatherleigh; Mr. Turton, Wolverhampton; Mr. Potts, Cranbourne; Dr. Tolbook, Liverpool; Mr. Smith, Monkwearmouth; Dr. M'Bride, Gilford; Dr. Martin, Stonehaven, &c. &c.

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No. 446. SUMMARY. April 15.

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ORIGINAL LECTURES.

LECTURES ON SOME OF THE MORE IMPORTANT POINTS IN SURGERY.

By G. J. GUTHRIE, Esq., F.R.S.,
Read by Mr. HANCOCK, Surgeon to the Charing-cross Hospital, and Lecturer on Anatomy and Physiology at the Royal Westminster Ophthalmic Hospital.

Lecture X.

ON WOUNDS AND INJURIES OF THE CHEST.

Gunshot wounds of the chest, penetrating the cavity, always dangerous; Dr. Gregory's inferences erroneous, as to the results at Quebec; results after the battle of Toulouse; of Menière, at Paris, in 1830; of Hippolyte Larrey; after Waterloo; on the Sutlej; appearances of orifices of entrance and of exit; symptoms; balls said to run round; peculiarities of; cases of; balls rebound from the sternum; lodge in it; removed from the mediastinum; Mr. Stanley's case; Ravaton's; Mr. Guthrie's case; balls impacted between the ribs, with fracture of the bones; enlargement of the gunshot wounds for the extraction of the ball; case of Hali Chaouz; Percy, Sorbier, and Gerard's cases; enlargement of the wound in cases of fracture of rib by musket-ball; Mr. Guthrie's case; extraction of splinters; imbedding of splinters, &c., in the lung; extraction of balls impacted between the ribs; injury of the costal cartilages; how to replace the bent portion; balls striking obliquely run round the chest; consequences of this kind of injury; Mr. Guthrie's case; character of the gunshot track through the lung, and its symptoms; beneficial effects of previous adhesions; Mr. Guthrie's cases; case of Sir Lowry Cole; of Sir Andrew Barnard; of Col. Brooke; of the Duke of Richmond; of Mrs. Magnus; comments on these cases; cases in which the external opening does not communicate freely with the cavity of the chest; cause of death from pistol-shot wounds in duels; effusion of red-coloured serum into the chest; case of Sir Charles Bampfylde; Mr. Guthrie's cases; M. Scharf's case; penetrating wounds followed by suppuration and recovery, with some alteration of the size and appearance of the chest; cases of the Marquis D'Harcourt, Major Gillies, Lieut. Forder, Major M'Gibbon, Captain Cane, &c.; Diemerbroeck's case; cases from the Indian battles; Mr. J. R. Taylor's case; Dr. Williamson's cases; case of Lieut.-Colonel Dumaresq; Mr. Collins's case; General Macdonald's case of the Bombardier.

Gunshot wounds of the chest, penetrating the cavity, are always exceedingly dangerous. It has been said by one writer, and it has been repeated by others, that the late Dr. Gregory, of Edinburgh, was in the habit of stating in his lectures, that of twenty-six wounds of the thorax received at the battle of Quebec, two only proved fatal. This statement being contrary to every known fact of the kind, since that period, cannot be relied upon, and must have reference to those cases only which were received into hospital some days after the battle, and after the worst had died. After the battle of Toulouse, on the 10th of April, 1814, one hundred and six cases of wounds of the chest in officers and soldiers, in all of whom the cavities were not opened, were received into the hospitals in the town. Between the 12th of April and the 28th of June, thirty-five died; fourteen were discharged to duty, and fifty-seven were transferred to Bordeaux, to proceed to England, some to die, some to be pensioned, but few, in all probability, to return to the service; being an ultimate loss, I have little doubt, of nearly one-half, if the fifty-seven cases sent to England could be traced. I have seen eight cases of pistol-shot, through or into the chest, in London, although all were not under my care; of these two only recovered. M. Menière, in giving an account of the wounded carried to the Hôtel Dieu, of Paris, in the three remarkable days of July, 1830, where every case was immediately taken care of, says forty cases were received into the hospital; of these twenty died, whose names and the nature of whose wounds he states; he names and states the cases of ten more, seriously wounded, who recovered, and he gives the names of seven more, in six of which the cavity of the chest was not perforated; and alludes to three wounded by small swords, who recovered; the loss being thus one-half, even if the rest happily and perfectly recovered, which may be doubted; thus showing that, with the ablest assistance the Hôtel Dieu of Paris could afford, the loss was one half. M. Hippolyte Larrey, at the hospital of Gros Caillou, lost only one in thirteen, but it is admitted that the slighter cases only went there, from its distance, the most serious being taken to the Hôtel Dieu. I lost in charge of the wounded, even at Toulouse, one in three, and I do not apprehend it will ever be much less, unless the improvements in surgical science should be more important than can be reasonably expected. After the battle of Waterloo, the loss was much greater; with the army on the Sutlej, it was so great as to be a matter deserving the most serious consideration, and I reserve this point for particular explanation.

When a musket-ball fairly passes through the cavity of the chest, the orifice of entrance is usually round, depressed, dark-coloured, and more or less bloody in the first instance; the orifice of exit is generally more of a rugged slit or tear, than a hole. The alarm is great, and the powers of life are depressed to a greater or less extent; the wounds may or may not bleed; the sufferer may spit up more or less blood; respiration may be difficult; countenance pale, extremities cold, pulse variable; all these symptoms being dependent on particular constitutions, and circumstances connected with the nature and extent of the injury inflicted.

It has been said that balls are apt to run round the body, coming out at a point opposite to that at which they entered, without penetrating the cavity of the chest; this, whenever it does take place, must be considered as a rare exception to a general rule, more talked about than seen; although it does sometimes happen, when the ball is reflected off something solid which it cannot penetrate, such as a button, a piece of money, a rib, &c. If the ball runs under the integuments exterior to the fascia covering the intercostal muscles, it is usually marked by a tenderness in its course on touching it, and a discoloration of the skin. A ball may, however, run between two ribs for some distance, injuring the muscular structures between them, without penetrating the cavity, in which case, after the first moments of alarm have passed away, the symptoms indicative of a penetrating wound either cease or do not occur, although those of inflammation of the pleura or lung may, and often do, follow to a considerable extent.

Case 77.—A private of the 23rd Regiment was wounded at Albuhera by a musket-ball, which struck the button of his coat, a little to the inside of the nipple of his right breast, glanced from it between the ribs, and came out nearly opposite behind, running a course about one-third round the body; some of the coat and flannel waistcoat stopped half-way, and gave rise to inflammation and swelling, requiring an incision, which revealed the exact nature of the injury.

In other cases, the presence of the balls, their subsequent extraction, and the absence of urgent symptoms demonstrated the deviations which had taken place. When the ball cannot be traced, the absence of symptoms, after the first period of alarm has subsided, will enable the surgeon to form the surest prognosis; their absence is, however, somewhat deceptive, and cannot too certainly be relied on.

A ball will occasionally rebound from the sternum, leaving merely a black mark; I have removed some without difficulty, from the spongy nature of the bone in which they had lodged, and one by the application of the trephine, ineffectually as regards saving life. Some surgeons have been fortunate enough to follow and remove them from the anterior mediastinum. I have never been able to trace them beyond the sternum, except after death. Mr. Stanley informs me there is a sternum in the museum of St. Bartholomew's Hospital, with a ball encased on the inside of it, nothing being discovered to indicate the track which it had taken. If a ball should be distinctly felt through a wound in the sternum, the broken portions of bone should be removed by the small saw or by the trephine, and the ball extracted; but this operation should not be done experimentally, or without a good foundation for it.

Case 78.—Ravaton relates a case, page 216, of an officer wounded by a pistol-ball, which penetrated the upper and right side of the sternum, and caused great apprehension of its being lodged in the chest. The wound in the bone being small, the trepan was applied, when the wadding of the pistol and some pieces of clothes were found immediately underneath, and two ounces of blood were discharged by leaning to the right side. The patient wavered between life and death until the thirteenth day, when the ball appeared at the wound, and was removed. The wound was injected, and Ravaton thought the cavity of the chest also; but it would seem to

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have been merely the mediastinum, in which a fistulous opening remained at the end of nine months, when he left the hospital.

Case 79.—A soldier of the battalion of detachments was struck on the hill of Talavera, when driven off it by the French the evening before the battle, and came to me; the ball, having penetrated the skin, was lying between the ribs, in the intercostal space, embedded in the muscles, whence it was removed by the aid of an incision. He recovered perfectly, but not without some loss of blood.

When a ball strikes the side or back of the chest, where the ribs approach nearer to each other, it may be impacted between them, usually fracturing one or other, and causing some difficulty in its removal. These are usually considered fortunate wounds. I have extracted several such balls with successful results, although these injuries are generally followed by active pleuritic inflammation.

It has been a question whether gunshot wounds should be enlarged; and the advocates of this proceeding in all other parts of the body admit that it should be done here with caution, and to less extent than in any other place. A division of the external parts, the *débridement* of the French, answers no good purpose that I am aware of, although it does no harm beyond the pain it occasions, unless there is something to be removed; when it ceases to be a mere *débridement*, and becomes an incision for an especial purpose, absolutely necessary, in many instances, for the removal of extraneous bodies or for the evacuation of blood, &c. The principle I apprehend to be, that, when a wound from a musket-ball appears likely to have penetrated the cavity of the chest, and is too small to admit the end of the finger, it ought to be enlarged, so as to allow of its introduction as far as the ribs, in order to ascertain whether these bones have sustained any injury, or anything is lodged exterior to or within them. I only object to a man being cut simply because he has been shot, but not when done for any apparent or well-founded supposition; but these enlargements of the wound should be of no greater extent than is absolutely necessary for the purpose intended. When pieces of shell, or of swords or lances, are broken off, and partly lodged in the cavity of the thorax, which is more likely to happen when they enter through the large muscles of the back, they will require larger incisions to give room for their removal, in doing which I have found no difficulty. Remont de Verduille, in his "Observations on Surgery," p. 126, relates the case of Hali Chaoux, a Turk, from whose back he extracted with difficulty six inches of a dagger, which had penetrated his diaphragm and kidney. Percy mentions a case in which seven inches of a small sword were broken short off, and not discovered until too late, having penetrated the chest and lung, and lodged in the fourth dorsal vertebra. Sorbiet extracted the point of a small sword, which stuck in a rib. The greatest applause was, however, given of old to Gerard, surgeon-in-chief of the Charité in Paris, who, perceiving that a small sword, after going through a rib, was broken off close to it, thought it advisable to make an incision through the intercostal muscles into the chest, and then to introduce his fore finger, armed at the end with a thimble, with which he pressed back the point of the broken blade. It is to be presumed that M. Gerard took care to hold on by the thimble in some way or other, that it might not slip off by accident; and the whole process would in modern times be, perhaps, more honoured in the breach than in the observance; although the Baron Percy does say that it was one of those imprescriptable resources which true genius alone has the right to suggest. In a case of this kind the surface and outer edge of the bone should be removed, until the piece of steel could be firmly seized and held by a fine pair of pincers or pliers.

When a ball sticks firmly between two ribs, it requires some care to remove it, as the rib both above and below may be more or less interested, although not actually fractured; this occurs especially when the injury is in the back near the spine, where the ribs are closer to each other. The attempt should be made during inspiration, when the lower rib should be depressed, and some thin but not sharp-pointed instrument like an elevator should be gently pressed around and under the loosest edge of the ball, in order to extricate it—a proceeding which has never failed in my hands.

When a musket-ball fractures a rib, there ought to be no hesitation about the propriety of enlarging the wound, if it should not be already large enough to allow the splintered portions of bone to be removed. It is possible that, in doing this, some pieces of cloth or other matters may be extracted, which might glide into the cavity of the thorax, or stick in the lung itself.

Case 80.—A soldier of one of the regiments on the left of the position of Talavera was brought to me, wounded by a ball in the left side of the breast, which had struck the sixth rib, going out about four inches nearer the back. As the point of the finger indicated the presence of broken bone, I enlarged the anterior wound, and then found that the ball had driven some spiculæ of bone into the surface of the lung, which appeared to have been previously attached to the pleura costalis at that part. These being removed, together with a piece of coat which had been carried in with the ball, left a small, clear wound, which gradually healed up, the man accompanying me on the retreat over the bridge of Arzobispo.

In all cases in which fractured parts of a rib are driven inwards by a musket or pistol ball it is advisable to see the broken portions or ends of the rib; the additional external opening in this case does no harm, even if it be of no particular service. The wound in the pleura should not, however, be enlarged, unless for a special reason, inasmuch as the entrance of air is as much as possible to be prevented, in order to avoid its causing a compression of the lung; but this is also of comparatively little importance after the first few days, if adhesions between the parts should not have taken place.

When a ball impinges with force on the centre of one of the ribs, and passes into or through the chest, the bone is usually broken into several splinters of different lengths, some of which frequently accompany the ball in the commencement of its course, or are even carried into the substance of the lung, together with a part of the wadding of the gun, or the clothes of the patient. These should if possible be early removed, and the sharp ends of the ribs rounded off. When the ball fractures a rib on passing out of the chest, the splinters are driven outwardly.

When a ball strikes a cartilage of one of the ribs, it does not punch out a piece, as it were, but merely divides and passes through it, bending it inwards, but rarely tearing away a portion. The parts of the cartilage thus bent and turned inwards are easily drawn outwards, and replaced by the end of the finger, a beat probe, or other curved instrument.

A ball when striking obliquely, but with force, on the chest, will frequently penetrate, and then run round, between the lung and the pleura lining the wall of the chest, for a considerable distance before it makes its exit. In this case the lung may be only slightly bruised, without the pleura pulmonalis or costalis being more than ruffled. In others the lung shows a distinct track or hollow made by the ball. A shade deeper, and the ball penetrates, and forms not a hollow, but a canal. I have often had occasion to suspect injuries of the first kind. The patient in all spits blood, and the first symptoms are severe; they usually, however, subside, and are not always followed, under proper treatment, by effusion.

Case 81.—A soldier of the battalion of detachments was brought to my hospital, after the battle of Talavera, shot by two balls, one in the abdomen, one in the chest, and died next day of inflammation of the abdomen. I examined the chest, and found that the second ball had entered between the fifth and sixth ribs on the right side in front, and had gone out near their angles, having run between the lung and the pleura costalis, doing little more than marking both as if slightly bruised.

When the ball fairly passes through the lung, it makes a canal through it more or less bruised and bloody, and which continues for a time to bleed more or less according to the size of the vessels which are injured, thus making a wound more dangerous as it approaches the root of the lung where the vessels are largest. In the generality of cases, blood is spit up, or, if effused, it gravitates in the chest, until it rests on the diaphragm or other most depending part according to the position of the patient. If it should be in quantity, the filling up of the chest may be ascertained by percussion and by auscultation, although the wound should be closed. As the quantity of effused blood increases, the lung becomes more and more compressed, until at last the hemorrhage ceases under pressure, from the closure of the wound; and the patient is saved for the moment, unless he should die of asphyxia from the lung of the other side being also compressed, through the bulging of the mediastinum on it. If the person wounded shall have suffered formerly from inflammation, and the lung has adhered in consequence to the wall of the thorax, at the parts where the ball enters and goes out, the cavity of the chest will not be opened, and the track only of the ball will communicate with the external parts, and the man to whom this happens may consider himself fortunate, unless the ball shall have perforated some of the large vessels, when he will continue to bleed by the mouth, the external wound being closed, and its passage outwards thus prevented. The pressure of the blood effused into the track of the ball and which may become coagulated, will sometimes suffice, under even these circumstances, to suppress the hemorrhage which the loss of blood, the faintness of the patient, and the weakness of the circulation, under proper treatment, will materially assist in rendering permanent.

The following cases are instances of balls passing through the upper part of the chest, treated with sufficient care and attention from the first, to indicate what course these wounds will frequently take under such circumstances:—

Case 82.—General Sir G. Lowry Cole, G.C.B., was struck at the battle of Salamanca, on the 22nd of July, 1812, by a musket-ball, which entered immediately below the clavicle, fractured the first rib, and, inclining inwards, came out through the scapula behind, and, as he spit blood for three days, the upper part of the lung was shown to have been injured. The ball appeared to have passed so close to the under part of the subclavian artery that the greatest fears were entertained for its safety, more particularly as a marked difference in the size of the pulse was perceived in the left arm, which I knew did not exist before. He remained three days on the field of battle, in a Portuguese officer's tent I always carried with me, and under repeated bleedings, and the strictest antiphlogistic treatment, several splinters coming away, and a large piece of the rib and of the scapula exfoliated, he gradually recovered, so as to be able to resume the command of the fourth division in October at Madrid. The subclavian artery never regained its power, and the radial always beat less forcibly on the left side. He perfectly recovered his health, the respiratory murmur of the lung being natural. He died in 1844, from rupture, I believe, of an aneurism of the abdominal aorta.

Case 83.—A dragoon of the King's German Legion, shot in a nearly similar manner on the same occasion, suffered more severely. The clavicle and first rib were splintered to a greater extent, and he lost a large quantity of blood by the mouth. The splinters having been removed after enlarging both wounds for that purpose, and the inflammatory symptoms subdued, he appeared to be going on favourably for three weeks, when, having taken some food rather irregularly, he suffered what seemed to be a bilious attack of vomiting and purging, accompanied

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by fever and oppression in the chest; an ipecacuanha emetic having been given, with full effect, relieved him much; during the efforts to vomit, the wounds discharged a quantity of sero-purulent fluid, which had, in all probability, been lying on the diaphragm, and a piece of the cloth of his coat, and another of bone, which had gone in with the ball, and in all likelihood had been lying with the matter at the bottom of the chest. After this he slowly recovered. Havaton, p. 202, 1758, gives even a more remarkable case of a similar kind.

Case 84.—Lieut.-General Sir Andrew Barnard, K.C.B., was wounded, when in command of the Rifle Brigade, at the passage of the Nivelle, on the 10th of November, 1813, by a musket-ball, which entered between the second and third ribs, in front of the right side of the chest, passed directly through the cavity and through the shoulder-blade, from under the integuments covering which it was removed. He not only felt, but heard the sound of the ball as it struck him, and fell from his horse. Blood gushed from his mouth, and continued to do so until after he was completely exhausted by bleeding from the arm to the amount of two quarts. He was again bled at night, and the subsequent morning, which relieved all the material symptoms. During six weeks he suffered from difficulty of breathing and cough, and from night sweats. Some pieces of bone and cloth came away from the wounds, with a free discharge in the first instance, which gradually diminished until the wound closed. In eight weeks he was able to resume his command.

Now, thirty-four years afterwards, the lung is pervious, and the vesicular murmur can be freely heard even up to the situation of the wounds, to the internal parts of which it may be concluded the lung adheres from the sound conveyed to the ear on auscultation. His health is otherwise good, and he has since suffered little or no inconvenience from the wounds.

Case 85, related by Colonel Broke.—Towards the close of the battle of Orthez, on the 27th of February, 1814, a musket-shot struck me between the second and third ribs on the right side, near the breast-bone. I was then on horseback, being aide-de-camp to Lieut.-General Sir Henry Clinton, commanding the sixth division. The sensation was precisely as if I had been struck a violent blow with the point of a cane, but it did not unhorse me. I was attended in a very short time by the surgeon of the 61st Regiment, when, on removing my clothes, the air and blood bubbled out from the wound as I drew my breath. The surgeon, turning me on my face, discovered the ball to be lodged under the thin part of the blade-bone. This he cut through, and extracted the ball, and with pieces of my coat, waistcoat, and shirt, which were lodged between the ribs and the blade-bone. This occurred about four p.m., and I was then removed to the town of Orthez, a distance of about three miles, and in the course of the afternoon the veins of my arms were opened in at least seven different places, but scarcely any blood came away; breathing became in a day or two exceedingly painful, and I felt nearly suffocated, when, in the evening, my brother, Sir Charles Broke Vere, arrived with my friend Mr. Guthrie, who examined me, and asked how I felt; I replied that the agony of drawing breath was such that I could scarcely endure it. He then opened one of the temporal arteries, and desired that it might be allowed to bleed without interruption. He afterwards left me, to visit some other wounded men, and returned in about three hours, when I told him that I felt relieved, and had much less of the suffocating pain in breathing. He then opened the other temporal artery, directing as before, that the bleeding should not be checked. I shortly after that dropped asleep, and, on waking, could breathe freely; and my recovery was from that time progressive, the wound in front, where the ball entered, being the first closed; but both were healed at the end of about eight weeks, and in about ten I was able to rejoin the army at Bordeaux.

July 9, 1846. H. G. Broke, Colonel.

He is now, 1848, in perfect health; respiratory murmur free all over the chest.

Case 86.—The Duke of Richmond, then Earl of March, was wounded by a musket-ball at the battle of Orthez, Feb. 27, 1814; while at the head of his company, in the 52nd Light Infantry. He was standing at the moment with his right side towards the enemy. The ball entered that side of the chest, between the fourth and fifth ribs, nearly in a line with the lower edge of the scapula. His lordship fell to the ground with great violence, and was speechless for some time.

He, at a future period, stated to me that the sensation he felt at the moment was as if he had been "cut in two."

On immediate examination there was no other opening to be found but the one where the ball had entered; nor were the medical officers (two or three being very soon on the spot) able to feel the ball anywhere under the skin or under the muscles.

The wound having been dressed he was laid on a door; I was ordered to take charge of his lordship, and to remove him forthwith to the town of Orthez, about three miles from the scene of action; during which he complained of excruciating pain, extending from the wound to the top of the os ilium on the same side; the pain much aggravated by frequent and severe cough, with copious expectoration of frothy mucus and much florid blood; his respiration hurried; countenance pale.

The moving him to Orthez occupied nearly three hours; a great part of the ground being very rough and broken, the men could not well step together, and the consequent unavoidable shaking and jolting caused much pain. On his arrival in Orthez he was extremely languid, with a tendency to syncope. Pulse feeble; extremities rather cold.

Seven in the evening. After having been faint for an hour, he became hot and restless; pulse 108, and full; skin more hot; and the respiration short and more hurried. After he was placed in bed, hemorrhage from the wound to a very considerable extent, took place.—Eight ounces of blood were now taken from the arm. (Could bear no more.)

15th inst., A.M. After the bleeding he became more quiet, and had less pain; but he has again become very restless, and the pain returned with a full, hard, and frequent pulse. The wound has again discharged a very considerable quantity of blood. V.S. repeated as before.

Nine P.M. Deputy-Inspector Thomson and Staff-Surgeon Maling, in my presence, examined the wound. Mr. Maling introduced his finger (the whole length) between the ribs, into the wound, without any interruption to its progress, and without being able to reach the termination of the passage of the ball; and Dr. Thomson then passed a probe (its whole length) straight into the chest, with a similar result; thus leaving no doubt on the minds of all present that the ball had passed directly into the posterior part of the chest, and consequently causing much serious apprehension for the fate of the patient; more especially as, on a further search for the ball by all present, its place of lodgment could nowhere be detected.

The principal medical officer reported, I believe, to the Duke of Wellington, that, "if the Earl of March were King of England, there was little or no probability of his being saved."

Midnight. The blood last taken is very buffy, and there has again been an immense discharge of blood, &c., from the wound; the sheets, mattresses, &c., are saturated with it; and on the floor, under the bed, there is a large pool of blood which had soaked through the bedding. Pulse 114, low and full; frequent cough, and expectoration as before; violent pain and great restlessness. Rept. V.S.

Rem.—Perhaps enough has now been stated to show the nature of the wound; and any further detailed statement of his lordship's sufferings, or the treatment of his case, would be unnecessary. On the latter point, however, it may be mentioned that, exclusive of the general treatment, he was bled seven times between the evening of the 27th of February and the morning of the 2nd of March; the cough, expectoration, breathing, pain, &c., being much relieved by each bleeding. A. Hall, M.D.

I saw the Earl of March on the same day as Colonel Broke, and suggested that no further efforts should be made to find the ball, whilst the treatment adopted should be steadily pursued. In 1846, I pointed out the ball under the edge of the base of the scapula, where I had always supposed it to be, it having approached nearer to the surface. His grace is now in good health, and the chest well formed, sounds clearly and soundly in every part, even at the point injured. G. J. G.

That the inflammation of the pleura in the preceding cases did not extend over the whole surface of the membrane will, perhaps, be conceded, or, if it did, there is every probability that it ended in resolution rather than in an effusion of fluid, and the formation of matter and of false membranes agglutinating the pleurae to each other: a result which does not follow in the generality of such cases, the pleura only adhering in the vicinity of the wounds. The size of the opening may also have allowed the evacuation of the extravasated blood and the fluids which might have been secreted, and may thereby, perhaps, have prevented further mischief.

The ball, in passing through the lung, in these cases, destroyed the life of that part only which it touched, and, although air would pass out at the time, this effect would not be of long continuance; and as the wounds were kept covered, if not quite closed, the lung did not and does not collapse or recede from the wall of the chest, but quickly recovers its state of expansion, however impaired it may be at the moment by the injury. The track made by the ball gradually suppurates and heals, leaving merely a small depression or cicatrix, on the surface attached around or in part to the wall of the chest by adhesion. The track through the lung may be readily seen, in such cases, after death, with moderate care in the dissection of the part, although during life it interferes so little with the respiratory murmur as not to be observable, unless by its greater distinctness from the thinness of the intervening parts.

Case 88.—Mrs. Magnus was wounded by a small pistol-ball, which entered on the right side from behind, between the seventh and eighth ribs just under the arm when hanging down, and passed out in front over the cartilage of the sixth rib, more than an inch from the pit of the stomach. She had not spit blood, and the ear declared the lung to be pervious to air at the wounded part, which induced me to think that the ball might not have penetrated the cavity, although it might have injured the pleura. I abstained, therefore, from feeling or enlarging the wound, lest I might make that penetrating which was actually not so. As she suffered great pain when I saw her, twenty-four hours after the injury, the breathing being oppressed, Mr. Adams bled her into a hand-basin, until I found she was about to faint. She lost nearly thirty ounces of blood, but her symptoms were quite relieved, so as to render any other bleeding during her treatment unnecessary. At the end of the third day, she spat a very little blood after removal in a carriage to another lodging, and then gradually recovered. After four different stethoscopic investigations, I came to the conclusion that the ball had not struck the lung in the first instance, although it adhered to the pleura costalis, by which adhesion the patient was saved from much mischief, as the lung in all probability suffered from some abrasion or ulceration at that point, which gave rise to the expectorated blood.

The five first cases are instances of wounds of the upper part of the lung, which are in general more dangerous than those of the lower part, from the vessels being larger, and from the greater difficulty with which any extravasated blood or fluids can escape. They also prove that, when blood is poured out in small quantity, it may be absorbed; what that quantity may be is doubtful,

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but auscultation will now render that more simple which was formerly very doubtful.

These cases also show that the inflammation of the substance of the lung is less in healthy persons than might be expected after so severe an injury.

In cases in which the external opening or wound does not communicate freely with the cavity of the chest, the principal danger arises from the inflammation of the pleura ending in effusion, which, if not evacuated, leads to the loss of the individual. It is the great fact to be attended to in the treatment of pistol-wounds of the chest, or those made by small balls which do not pass out. All the persons I have seen die from small balls, have died with the affected cavity more or less full of fluid. The *post-mortem* reports of all persons killed in England, in duels by wounds through the chest, unwittingly attest this fact, as well as the insufficiency of the surgical treatment they received, and the necessity for the future for its amendment. It is in these cases that the stethoscope is most valuable; its constant use is indispensable whenever the respiratory murmur has been gradually yielding before the encroachment of the effused fluid, which, in the first instance, looks nearly like red-coloured serum. When this murmur ceases to be heard, except at what is the upper part of the chest, whatever the position of the patient may be, it is full time to enlarge the original opening, or to draw off the fluid by the trocar and canula.

Case 89.—Sir C. Bampfylde, the minutes of whose case I have lost, was wounded by a pistol-ball in the back, which passed into the chest through the lower part of the lung of the right side, and lodged on the inside of the wall of the chest in front, and to the right side, sticking in and against a rib; but giving rise to no external marks or signs of mischief at that part, unluckily for him, so as to admit of an operation for its removal. The inflammatory symptoms having been restrained, it was, nevertheless, plain to me that the cavity of the chest was full of fluid, and that the oppression in breathing arose from it, and not from the injury done to the lung. The stethoscope was then unknown, the ear was no in use, my older colleagues were obstinate, they would not hear of an operation for enlarging the wound into the chest, and as our patient was, unfortunately for him, shot in London, instead of in the pass of Roncesvalles, or on the bridge over the Bidassoa at Irun, we let him die on the eighth or ninth day, without all the aid which surgery might have given him. It is possible he would not have recovered under any circumstances, from the ball being lodged, and his advanced age. Yet, if the cavity of the chest had been emptied, the ball might have been discovered and removed.

Case 90.—A soldier of the 5th Division of Infantry was wounded at Toulouse by a musket-ball, which entered between the fourth and fifth ribs of the right side, near the sternum, and came out behind nearly opposite, fracturing the ribs, the splinters of which were removed. The first symptoms of inflammation, having been in some degree subdued by the sixth day, were followed by those more immediately indicating effusion, such particularly as great oppression, difficulty of breathing, inability to lie in the recumbent position, which induced me to introduce into the posterior wound a gum-elastic catheter, through which, after a little pressure, a quantity of red serous fluid was withdrawn, exceeding, perhaps, three pints in measure. On the removal of the catheter, the discharge of fluid ceased, and, under a strict antiphlogistic treatment, the man gradually recovered, so as to be sent to England in the following June.

If the matter had been purulent, I should have enlarged the wound; if the symptoms of oppression had returned, I should have repeated the operation, perhaps, lower down. Auscultation, if it had been then known, would have smoothed away many difficulties.

Case 91.—M. Scharf has related an interesting case in Casper's "Wochenschrift," which has been translated in the 36th volume of the *Medical Gazette*, for March, 1845, page 978. The patient was gored by a bull, on the 24th of May, 1842, on the right side of the chest, the third and fourth ribs of which were broken; called on the second day, M. Scharf found a wide gaping wound, about two inches broad, with a passage leading downwards and inwards, from which, at each act of respiration or coughing, either a bloody serous fluid or air was expelled with a hissing noise. The patient had lost a large quantity of blood, chiefly from the wound, some by coughing. A piece of the third rib had been forced into the chest, and part of the lung had protruded, but both were replaced. On the 27th and following days, a most abundant discharge of a bloody serous fluid took place from the wound, which, at each effort of coughing, spirted out in considerable streams, mixed with air-bubbles. By degrees this matter became thicker and more puriform, but at the same time very fetid; occasionally more than a pint was discharged at once. Air ceased to escape from the wound about the second week. The cough and expectoration diminished in proportion as the lad's strength improved, and about the sixth week they ceased. The sounds on percussion, which, so long as the cavity of the pleura was filled with fluid, had remained dull, became clearer as the respiratory murmur extended over the hitherto compressed lung. At the present time, March, 1845, they are both perfectly natural. He breathes without the least difficulty, and both sides of the chest expand alike.

In this case, it should be observed that to the great bloody discharge which took place on the fourth day after the receipt of the wound, and to the free exit of this, and to the subsequent flow of matter, the patient owed his safety.

This case is otherwise deserving of attention from the perfect restoration of the function of the lung, and the absence of all falling in of the walls of the chest.

Case 92.—A soldier of the 40th Regiment was wounded at Toulouse on the 10th of April, by a musket-ball, which entered about two inches below the nipple of the right breast, passed through the cavity and the lung, and came out behind at a nearly opposite point, injuring the ribs above and below, without entirely destroying their continuity. He was bled largely on the morning of the 11th, and again at night; on the 12th it was repeated; some small pieces of ribs were extracted from both orifices, and some part of his dress from the anterior one. He spat blood when he coughed, and respiration was difficult. Calomel, opium, and antimony were given in pills every six hours, and the bleedings were repeated daily, and sometimes oftener, for the first eight days, during which time a free discharge, at first serous, afterwards purulent, took place from the wound, after which the inflammatory symptoms subsided; the cough became easier; the expectoration less, and free from blood; breathing easy. The calomel was omitted; a mild farinaceous diet was allowed instead of a little gruel, and a very little bread and milk; in a fortnight the wounds began to heal. On the 1st of May, some small pieces of rib were removed from the anterior wound, after which both gradually closed, and he was forwarded to Bordeaux on his way to England in the beginning of June, cured.

C. Boutflower, Surgeon to the Forces.

Case 93.—Corporal Dunlary, of the 69th Regiment, was wounded on the 16th of June, 1815, at Quatre Bras, by a musket-ball, which entered the thorax, fracturing the seventh rib on the fore part of the right side, and lodged. He lost a large quantity of blood from the mouth, he says, and some from the wound, between that and the 19th, when he was brought to the hospital in Brussels. The pulse was then quick and hard, respiration difficult and anxious, and a bloody discharge issued from the wound on every respiration; bowels confined since the accident; was bled to forty-four ounces; saline purgatives, with calomel and antimony and opium, were given until the 29th June, when the wound discharged good pus. From this time, at different periods for six weeks, he lost ninety-two ounces more blood, being strictly placed on milk diet, and several pieces of rib exfoliating. He was sent home on the 31st of August, declaring himself quite well, as well as ever he had been in his life; the ball remaining undiscovered.

Case 94.—John Butler, 71st Regiment, was wounded on the 18th June, at Waterloo, by a musket-ball, which fractured the inner part of the right clavicle, a little to the outside; injured the brachial plexus of nerves, without affecting the vessels, passed obliquely downwards, backwards, and inwards through the chest, injuring the superior part of the lung, and came out about an inch and a half from the base of the scapula, opposite the spine. He spat blood in moderate quantity, breathed with some difficulty, suffered from pain in the part, and from total loss of the use of the right arm. He was bled largely several times during the first fortnight, during which period some little blood and matter were discharged from both wounds. They gradually, however, closed, and on the 20th of August, 1815, he was sent to England, cured, with the exception of some slight difficulty of breathing on exertion or walking quickly, and with paralysis of the right arm.

Case 95.—A soldier of the Fusilier brigade was struck by a musket-ball on the right side of the front of the chest, at the battle of Albuhera, which entered between the fifth and sixth ribs, passed through the lungs, and lodged. Three days afterwards, when the first symptoms were in part subdued, he complained of pain in a particular spot, nearly opposite to where the ball entered, and at which part something could be felt deeply seated. As an incision could do no harm, and the removal of the ball would do good, I made it, and found the ball lodged in the internal costal muscles and between the ribs, whence it was easily removed. A considerable discharge of reddish-coloured serum followed, with great mitigation of the symptoms, after which, under strict treatment, the man recovered, and was sent to Elvas with every prospect of a cure.

The following are examples of wounds of the chest, attended with formation of matter and ultimate recovery, but with some alteration of the size and appearance of the chest.

Case 96.—Lieut.-Colonel Harcourt and Major Gillies, of the 40th Regiment, were both shot through the chest, at the head of the regiment, at the successful assault of Badajos; the wounds were as nearly similar as possible, from before directly backwards. They were taken to the same hut, and treated alike with the same care by Mr. Boutflower, the surgeon of the regiment; with whom I saw them daily. The inflammatory symptoms ran high in both. In Major Gillies, a tough old Scotchman, they could not be subdued, and he died at the end of a few days, of pleuro-pneumonia. Colonel Harcourt slowly recovered, and died Marquis d'Harcourt, near Windsor, more than twenty-five years afterwards, suffering little or no inconvenience from his chest when I last saw him.

Case 97.—Lieut. Forder was wounded, on the 13th Sept., 1810, off the Mauritius, by a musket-ball, which entered two inches outside and a little above the nipple of the right breast, passed through the chest in a direction slanting downwards and backwards, and can now (Feb. 24, 1843) be felt under the integuments of the back. He lost a great quantity of blood from the wound, and was bled so frequently as to be unable, as he supposed, to move in his bed for six weeks, from it and from the quantity of blood and matter which was discharged by the wound. This continued for four weeks before it diminished, and eight before the wound closed. He coughed and expectorated blood before the wound healed, and frequently afterwards until the present time, when occasional recurrences take place. The affected side of the chest is flatter in every way than the other, and the respiration is very indistinct, both above and below the injured part. In this case the lung has, I have no doubt, adhered to the pleura lining the ribs, after becoming indurated in parts and diminished in size, drawing

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in with it, as a means of cure, the wall of the chest.

Case 98.—Major M'Gibbon was struck by a musket-ball on the fore part of the right side of the chest, in Spain, which went directly through and came out behind. Some pieces of rib were removed from both orifices, together with a portion of his dress. He lost a quantity of blood by the mouth, and some by the wound, and fell much dying. The anterior wound was so large as to admit the finger readily into the cavity of the chest, and remained open so as always to allow the evacuation of the fluids poured out into the cavity of the pleura. Slowly recovering from the shock caused by the injury, reaction followed by degrees, and then the difficulty of breathing became excessive. He was bled many times during the first week, in large quantities, as the inflammatory symptoms in the chest returned, and with reference to them only, and not to the pulse. Suppuration was, at the end of ten days, fully established; purulent matter was freely discharged, both from the wound and from the lungs. The bad symptoms gradually subsided, the wound closed, and with great care he eventually recovered, the side being flattened, but not to the extent which often takes place in such cases.

Case 99.—Captain Cane, 23rd Fusiliers, was wounded at the affair of Saca Parte, in front of Alfaites, in 1812, by a musket-ball, which struck him below and a little to the outside of the left nipple, fractured the rib, and entered the chest, giving rise to the sensation as if the ball had passed diagonally downwards and backwards to the loins of the same side. He spat blood, and was very faint. The next day he could scarcely breathe, was in great pain, continued flushed and anxious, pulse 100. I bled him into a wash-hand basin until he fainted, and every day afterwards, some days twice, to a less extent for ten days, and once again until syncope was induced, on an accession of symptoms after an imprudence in taking a little wine, which nearly, he said, smothered him. Some pieces of flannel shirt, of braces, coat, &c., were removed from the wound, and several portions of bone gradually followed, together with a quantity of matter, which continued to flow from May until the end of the following September, when the wound healed.

On the 13rd of January, 1821, I had an opportunity of examining this gentleman. My report says, he is never free from a little pain in the loins, where the ball is supposed to be, and cannot take a full inspiration without pain in the chest; expectorates more or less constantly, and occasionally a little blood, and about once in three or four months in half-congealed lumps. Cannot ride or take any exercise, on account of bringing on the pain. The cicatrix shows a large deep hole, and the deficiency of rib is well marked. The side of the chest is altogether contracted and flatter; the heart has been moved behind the sternum, the beat of the apex being on the other side of the xiphoid cartilage, and that of the heart, as a whole, is more indistinct than usual. Is otherwise in good health. It is possible that this ball may be lodged in or be retained by layers of coagulable lymph in the angle formed between the diaphragm, the ribs, and the spine.

Case 100.—William Downes, of the 11th Regiment of Infantry, aged thirty-three, was wounded by a musket-ball, on the 31st August, 1813, in the Pyrenees, which fractured the fourth rib of the left side, passed through the chest, and came out behind through the scapula. He spat a good deal of blood, although little flowed from the wound. The next day he was bled largely, twice, to relieve the bleeding from the lung, and was sent to Passages, where he was bled daily; and thence, a ship being ready, to Santander, where he arrived on the 14th of September. A free bloody purulent discharge took place from the anterior wound, but little from the posterior; and he expectorated a bloody purulent matter, and occasionally a little blood. Towards the end of September the sanguineous expectoration ceased, but the soft parts of the chest had sloughed and separated under an attack of hospital gangrene, from which he had a narrow escape during the month of October. The wound in the chest gradually closed during the month of November; and on the 14th of December he was discharged, convalescent, his health tolerably good, but his breathing by no means free; no expectoration. The left arm was impaired in power, in consequence of the mischief done to the muscles of the fore part of the chest and shoulder from the hospital gangrene. The chest was altogether somewhat flattened and shrunk, but there did not seem to be any diseased action going on within.

I considered the lung, in this case, to be somewhat shrunk, impervious, and adherent.

Case 101.—Diemerbroeck, in his "Observationes et Curationes Medicæ," says, Ob. 38, that a gentleman was wounded in May, 1636, by three balls, which passed through the left side of the chest, near the nipple, and came out behind in three different places. A part of the treatment consisted in introducing a leaden canula through the lowest wound, through which the blood and matter from within might be evacuated, and when this was seen to be done inconveniently, an incision was made farther back in the side, between the ribs, for its more easy evacuation. The discharge from the canula, and the spitting up of pus, continued for six months, nearly wasting him to death. After this, under the use of goat's milk and other appropriate remedies, he began to improve, and, at the end of eleven months, recovered. Diemerbroeck saw him seven years afterwards, in good health.

The chest in this case must have been flattened.

Case 102.—Corporal Patrick Brennan, 29th Regiment, was struck, at Ferozeshah, by a grape-shot on the inner side of the right humerus, opposite to the lower margin of the axilla. The course of the ball seems to have been changed by the bone, and directed into the chest; it came out behind, and a little below the inferior angle of the scapula. Next morning he spat large mouthfuls of blood, and has done so on several occasions since. A portion of the humerus exfoliated, and several pieces of the ribs and of his jacket have been removed from the wound on the posterior aspect of the chest. The arm is wasted, and its power and motion impaired. He also complains of occasional shortness in breathing.

J. R. Taylor, Surg. 29th Regt.

Case 103.—Private Samuel Eldridge, 62nd Regt., at Ferozeshah, was struck with a grape-shot in the left arm. The ball entered on the outer side of the head of the humerus (he was standing, at the time, with his side to the enemy), and appears to have gone backwards, entered the chest, and was taken out, seven months after, at the anterior margin of the scapula, a little above its inferior angle. Thirteen days after the accident he spat up large quantities of blood, which continued for three months. A portion of jacket and a piece of bone were taken out, five months after, from an incision made at the posterior margin of the axilla. Several pieces of bone came away from the wound on the head of the humerus; also, portions of the scalpula from the posterior one. The shoulder-joint is now anchylosed, and the arm wasted.

Case 104.—Sergeant John Leary, 50th Regt. A musket-ball passed through the right lung, between the ribs, without fracturing any bone; it entered immediately above and close to the right nipple in the fourth intercostal space, passed through the lung, and made its exit opposite to the inferior angle of the scapula, and dropped down under his clothes: he got on to a gun-carriage, and was taken almost immediately to the field hospital; was sent to his own hospital shortly after, and remained there for three days before anything was done for him; partly, he states, on account of the scarcity of medical officers, and partly from his case being considered hopeless. He lost a large quantity of blood from the anterior wound, and expectorated large mouthfuls of blood immediately after the injury, and for six days subsequently. On the third day, portions of his jacket and shirt were taken from the anterior wound, which was healed in six, and the posterior one in seven, weeks. Has pain in the chest when he over-exerts himself, or when he coughs; but at other times has no uneasiness. Was also wounded in the left leg and right fore-arm, the latter of which required to be amputated about its centre.

Case 105.—Private William Flaherty, 31st Regiment, when advancing to the batteries at Sobraon, was wounded by a musket-ball in the right breast, which entered close to the sternum in the second intercostal space, passed obliquely through the chest, and was cut out from beneath the skin (a few hours after) at the posterior aspect of the arm, close to the axilla. At the time of the accident, and for twelve hours after, he was nearly choked with blood from the lung, which he continued to spit up in smaller quantities for the space of three weeks. There was at first considerable hemorrhage from the anterior wound, which healed in three months, and broke out afresh a fortnight after, finally cicatrising at the end of three weeks more. When the wound reopened, he expectorated some blood. The right side of the chest, in front and immediately below the clavicle, is a little flattened, and not so full as that of the left, which seems to be owing to the smaller size and wasting of the pectoral muscles. On running the finger along the second rib, close to the cicatrix, the bone is felt to be slightly enlarged from ossific deposit; the ball having probably struck it, and then entered the chest. On taking a full inspiration, the right side does not expand so fully or freely as the left, probably on account of universal adhesion of the pleura. Percussion elicits a clear sound over the whole of the thorax; the respiratory murmur is very distinct in both sides, rather more so in the right than in the left; close to the cicatrix, where the intercostal muscles have been destroyed, respiration is more clearly heard than at any other part, and on expanding the chest a portion of the lung is as it were pushed between the ruptured intercostals. The thinner layer of muscles on the injured side, compared to the other, and particularly at the wound, may account for the respiration being heard more clearly there than on the sound side. He states that he has a slight cough and mucous expectoration, and occasionally pain in the chest at the side of the wound. He is a stout, muscular man, and apparently in good health.

The following is a case of a ball supposed to be lodged in the lung:—

Case 106.—Private Martin May, 31st Regt., was wounded in the left breast, at Sobraon, by a musket-ball, which entered the chest in the second intercostal space, about two inches and a half from the sternum, or at the junction of the cartilages with the ribs. He spat up large mouthfuls of blood at the time of the accident, and in smaller quantities for a fortnight after. The ball still remains in. He was taken to the field hospital immediately, and on the third day was carried to Ferozepoor; the wound was probed, but the ball could not be felt. Four months after the receipt of the injury the wound healed. On examining the chest, the left side is found to be of the same size as the right, and both expand equally on taking a full inspiration. Percussion is clear on both sides; and on applying the stethoscope, the respiratory murmur can be heard distinctly over the whole chest, and not at all diminished around the cicatrix. The man has a slight cough, with a mucous expectoration; he has no pain in the chest, except when coughing, and then he feels it in the breast, extending from the wound to the axilla. He had dysentery in India, in 1840, and the abdomen is at present tumid; bowels regular; he states that he is now in good health. Jan. 6, 1848, doing duty with his regiment.

G. Williamson, M.D., Staff-Surg. 2nd Class, Fort Pitt, Jan 1, 1847.

Case 107.—Lieut.-Colonel Dumaresq, aide-de-

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camp to the present Lord Strafford, whilst turning round, after a successful charge of infantry at Hougomont, on the 18th of June, 1815, was wounded, about two o'clock, by a musket-ball, which passed through the right scapula, penetrated the chest, and was afterwards found in the axilla, lodged in the middle of the rib, which was supposed to be broken.

"When desired to cough by the medical officer who first saw me, almost immediately after receiving the wound, some blood was intermixed with the saliva. I became extremely faint, and remained so about an hour and a half, after which I rode four or five miles, to the village of Waterloo, where I remained until about nine o'clock without any other person seeing me. I was bled in the course of the night-time by Mr. Ambrose, assistant-surgeon Royal Artillery, which relieved me from the great difficulty I had in breathing; this difficulty was accompanied by a severe pain down my neck, chest, and right side; until the evening of the 19th I was much easier, but in the course of the night the difficulty of breathing becoming much greater, and the spasmodic affection having very much increased, I was bled seven times until the middle of the next day.—20th. I continued better, but was then seized with the most violent spasms in my neck, chest, and stomach imaginable. I could scarcely breathe at all, and was in the greatest possible pain; I was again twice very largely bled, and my stomach and chest fomented for a length of time with warm water and flannels. I passed a very tolerable night, and continued pretty well until two o'clock the following day, when I was again very largely bled, by which I was very much relieved; I continued pretty well, and free from much pain; but, my pulse having very much increased, and having a good deal of fever on the 23rd, Mr. Powell, who had attended me after the second day, again bled me; after this I continued free from much pain or difficulty of respiration, and on the 26th was moved into Bruxelles, when I came under your care. I forgot to mention that, when I was so violently attacked, I had two lavements most vigorously applied; salts, &c., proving of no avail, took digitalis, commencing ten drops every four hours, and increasing to fifteen from the second day.

"N.B. Up to this period, the 2nd of July, the devil a bit have I eaten.

> "Whilst with fat mutton chops and nice lobs of veal,
> You stuff your d—d guts, your hearts are all steel.
> Oh! ye doctors and potecaries, you'll all go to hell,
> For cheating our poor tripes of their daily meal.
>
> "H. Dumaresq.

"To G. J. Guthrie, Esq."

The ball in this case was lodged in the rib, which ultimately became much thickened around it. He recovered with good health, but with occasional spasms in the chest; and died of apoplexy, in Australia, twenty-five years afterwards. His doggerel lines, which I cannot suppress, show the buoyant and unconquerable spirit of a soldier, who knew that his chance of recovery was but small. It was a most gallant, a most friendly spirit. G. J. G.

If the ball had caused a greater degree of irritation I was prepared to cut down upon the rib, and remove a part of it if necessary; for I have seen balls so situated slip from their lodgments, causing general inflammation, suppuration of the cavity, and death, which must almost always ensue in such cases, unless the ball can be removed, and the matter evacuated by the operation for empyema.

The two following cases are more remarkable, as showing the advantages derived from the removal or passing out of a shot, however large.

Case 108.—Mr. Collins, of Renton, has recorded in the eighth volume of "The Provincial Medical Journal" the case of Captain Wynn, of the 23rd Fusiliers, wounded in Holland on the 2nd Oct., 1799. He came under the care of Staff-Surgeon T. Hunter on the 2nd of December, who found him expectorating large quantities of purulent matter, with a wound in the side, through which no matter came until the 11th, when a probe, passed into the chest to several inches, then struck against a ball. On the 12th Dr. Hunter enlarged the wound, sawed away a portion of one of the ribs which had been broken in the passage inwards of the ball, and removed an iron grapeshot weighing three ounces and a half and three grains. After this Capt. Wynn gradually recovered, and it is believed lived several years afterwards.

Case 109.—Captain, now General, Macdonald, of the Royal Artillery, was present at Buenos Ayres, when a bombardier of that corps received a wound from a two-pound shot, which went completely through the right side, so that, when led up to the general, who was lying on the ground, he saw the light quite through him, and supposed he was of course lost; this, however, did not follow, and some months afterwards the man walked into Capt. Macdonald's room so far recovered from the injury that he was able to undertake several parts of his duty before he was invalided.

CLINICAL OBSERVATIONS ON SOME OF THE MORE FREQUENT DISEASES OF CHILDREN.

By W. HUGHES WILLSHIRE, M.D. (Edin.), M.B.S., Physician to the Royal Infirmary for Children, &c.

(Continued from p. 443.)

Gentlemen,—In my last lecture I detailed to you the more prominent symptoms of *remittent fever*, and noticed the more frequent complications which arise in the course of this very common disease. The variety of it which I represented to you was, as I told you, a marked and decided one of the acute description, and I purposely chose it because the picture which I might draw should possess decisive and characteristic outlines.

I did not in my previous lecture mention to you that some authors have noticed a peculiar condition of the muscles of the neck as a prominent symptom of our present disorder. Dr. Joy says, "There is a symptom we have met with in this disease which has been omitted in most descriptions of it, viz., a stiffness in the neck and intolerance of pressure in the upper part of the spine; with this a general increase of the sensibility of the whole surface of the body seems sometimes to coexist, so that the child can scarcely bear to be touched in any part. The first of these symptoms has not, however, escaped Heberden. "In the fever of children," says this accurate observer, "the face is sometimes drawn to one shoulder. I have often seen this, but never knew it continue long after the fever was cured." He alludes to it in another part of his work, under the name of "the wry-neck of children." I may also state that Underwood remarks that, "At the decline, also, of certain anomalous fevers that have lasted ten or twelve days, great pain of the neck has taken place, attended with a little tumour of the part and great rigidity of the muscles, drawing the head forcibly to one side." This affection of the muscles of the neck I have now and then observed myself, and very frequently noticed the increased sensibility of the whole cutaneous surface. The former was very marked in the case of the little boy I spoke of in my last lecture, who lost his power of audition after brain complication; and, with respect to the latter, I may remark that you will often, when about to examine a child of three or four years of age, be stopped by the mother's exclamation, "He won't let you touch him, Sir; he can't bear me to touch him." I tell you of these symptoms, not certainly as essential to, or actually indicative of, remittent fever, but as forming frequent links in the chain of diseased phenomena met with in this affection.

I told you that the usual termination of such a form of the disease as I have detailed is in the restoration to health, and that this will ensue in a period of time varying from ten to thirty days. But I also remarked that the symptoms may become low or typhoid in character, and, if such is the case, the period of its duration may be considerably increased, the health of the child greatly undermined, and such a state of constitution induced that the seeds of disorder may be sown, or constitutional tendencies openly developed in a scrofulous subject, which may impose months or years of suffering and ill health on the patient, if a fatal result should not happen much earlier. But this is not the rule, it is the exception; and also that, when *typhoid* remittent occurs, it appears far more frequently as a primary form than as secondary upon the more common, simple, and less adynamic variety.

When the typhoid type follows on the simple, the *low* symptoms supervene early in the complaint, the child becomes completely prostrated, keeps the recumbent position, and the *mal-aise* is intense. During the remissions the diminution of the febrile symptoms is less marked, the child suffers considerably, there is more continuousness of the febrile action, and the older the child the greater is the tendency for the fever to assume a typhoid character. The tongue is far more coated than in the simple form, often with a brown, thick fur; the lips become cracked and scabbed, the nose is sore, and the tongue and inside of the lips suffer often under severe ulcerous stomatitis; there is a peculiar retraction of the lips; the child moans and cries whenever it is not sleeping, which generally it has great tendency to do. In older children delirium supervenes, and nervous symptoms, as they are called, become prominent. The child takes nothing, sometimes not even drink. The bowels become very loose and costive alternately, but often severe diarrhœa is set up. The belly falls in, great wasting occurs, and pneumonia is not unlikely to supervene. From these symptoms, however, the child generally gets better gradually; the low typhoid, or adynamic signs diminish in intensity; the little patient intellectually becomes more himself, the appetite increases, the tongue cleans, the mouth heals, and convalescence is established, with which costiveness comes on. Sometimes the transition from such a low condition to an improved one is remarkably rapid, the child in a few days time becoming quite a different being.

In children living in bad situations, or of a scrofulous constitution, badly fed and neglected care of, the fever breaks out at once with the typhoid form, marked by the sudden and great prostration, the darker and more furred tongue, and tendency to brain disturbance.

The danger to be apprehended in this form of the complaint is, that from the low state of the vital powers and assimilative functions, scrofulous and tuberculous disorders at this period of life so frequent, should be excited to openly manifest themselves, which otherwise, in a less depressed system, might have lain long dormant, or have been overcome by gradually increasing growth and strength. Of course you may have just the same important complications here as you have in the former or simple variety, but greater is the danger of them in the adynamic form. All the adynamic forms are of longer duration than the simple acute, but not of so protracted a length as the *chronic*, and of which I am next to speak. I may here remark that, when I treat of the typhoid fever of older children as distinct from the remittent with typhoid symptoms of younger ones, you will learn more of the nature of these adynamic conditions of fever.

You will observe that in the various forms of *remittent* which I have detailed to you, the symptoms have been marked and declared, there can have been no doubt either to parent or practitioner that the patient was labouring under severe constitutional disease. But there is another form of the febrile disorder which invades the system so gradually, lightly, and insidiously, that, although the child after a little while is observed not to be well, yet what ails it is quite a puzzle to the mother, and the practitioner, without care and inquiry, may at first be at fault too. Another peculiarity of this form of the disease is, that, once having invaded the system,

it keeps its hold upon it most pertinaciously, lasting even for a period of three or four months. Although thus protracted in its action, its influence on the system is often not very severe; but sometimes the reverse of this happens and *local* complications of a very serious character are set up, or by the wear and tear, as it were, of the vital energies, and depression of the organic nervous system, the constitution and powers of the child become severely reduced.

This form of remittent is analogous to what Dr. Butter termed the *slow*, and which term you will hear now and then employed by the mother of the patient. It is synonymous, also, with the "chronic form" of Dr. Copland. It is characterised by a very gradual approach; the *mal-aise* is not sudden nor intense; the exacerbations are not frequent nor very severe; the tongue is but thinly coated, if at all; the appetite is diminished generally, but I have seen it very great; there is not very much increase of thirst: and during the remission, which often last for a whole day, the child plays about, though somewhat less lively and actively than before. The bowels are almost always costive: sometimes the utmost difficulty is found in moving them. Now and then a more severe exacerbation will ensue, and then the little patient lies about, is more inclined to sleep, and the mother begins to think she must have advice about her child. In some cases you will have a patient brought to you suffering in this way, and the mother will say, "It has been off and on ill for two or three months, or "ever since it had hooping-cough or measles, or "since it was cutting its last teeth." I had a child brought to me, of about three years and a half old, the other day, whose mother said it had had "slow fever for three months." Sometimes the effect of this slow and chronic form is severe upon the constitutional energies. You will have children brought to you who are said by their mothers to be "completely taken off their legs," "made like a baby again." They have lost all power in their lower extremities, and are getting daily thinner and thinner.

Another and very important thing for you to be aware of is this, that in the course of such a *slow* fever an important complication will arise which may kill the patient. Thus, after a mild slow fever has lasted for a month or so, suddenly the child evinces more *mal-aise*, the mother notices it breathes with difficulty and has a slight cough. She takes it for advice, and inflammation is found to have invaded the structure of the lungs, the child in all probability having suffered some amount of what we may here call latent pneumonia for some short time before it is seen by the practitioner. Mr. Barlow, the late house-surgeon, will recollect the case which came before us a few mornings ago at the infirmary, in which the mother said the child had had *slow fever* for three months, but that she now brought it to us, for it had something the matter with its chest. On applying our ears to this child's inter-scapular region we discovered abundant evidence of existing pneumonia. This child was sitting upright on its mother's knee, looking freely about, and attentive to what passed. It was pale thin, and worn down, and its lips somewhat scabbed; but yet there was an activity, a quickness about it, a combination incompatible with any form of the remittent, save the *slow* and *chronic* of which I am speaking. It is such complications as these that make this variety of the fever precarious to the little patient. As in the other forms, however, so is it here the law, that, under proper care and management, chronic remittent fever shall progress to recovery.

In the slow and chronic form you must always particularly inquire of the mother as to the existence or evening or nightly exacerbation, or whether or not the child gets restless and warm, however slightly, at certain periods; if so, and costiveness is present, and the child very gradually loses colour, flesh, and strength, you can have no doubt about what is the matter. This slow and chronic form is by no means uncommon in the scrofulous constitution, and in which during its course all sorts of manifestations of this peculiar diathesis will present themselves. (See *Medical Times*, vol. iv.) Disease of the mesenteric glands, of the lungs, of the meninges, &c., may be set up; inveterate forms of chronic eczema, impetigo, &c. &c.; scrofulous ophthalmia is not uncommon in its course, and small boils and abscesses occur in different parts of the body; ecthyma, is very frequent as also troublesome ulcerations about the nails or on the toes and fingers, and very often over the internal malleolus.

There is a variety of remittent fever which forms a sort of link between the symptomatic and idiopathic constitutional disturbance, inasmuch as it is undoubtedly due in its origin to a local disorder; but, after the latter has been removed, the fever still persists and becomes a disease *per se*. It appears here that, the febrile erethism once being established, although the origin of it no longer exists, yet the general morbid impression made upon the system cannot be got rid of; and we know that, a periodicity of abnormal action once being stamped upon the manifestations of the organic and nervous powers, it is no easy matter to break it up. Such we see exemplified in certain forms of eccentric epilepsy and other convulsive diseases, and in hysteric and nervous affections. This form of fever I consider as hinted at by Dr. H. Davies, although I cannot agree as to the intestinal lining membrane being always in fault. Dr. Davies remarks—"In a third class the child slides imperceptibly into remittent, fever during the progress of any disorder, particularly of any of the exanthemata. This obviously arises from the proneness of the intestinal mucous membrane to take on morbid action under these circumstances, and which is not unfrequently promoted by the abuse of purgatives in the treatment of children's diseases. The more delicate a child is, and particularly if it be of a strumous diathesis, the more likely is this occurrence to take place, and then there will be a proportionate increase in the danger of the disease when established." (See the last edition of Underwood.)

Since it is the rule, as I have told you, that idiopathic remittent fever, though one of the most common affections of youthful life, is at the same time one of the least fatal, it is not to be wondered at that opportunities for *post-mortem* examinations are very rare, comparatively speaking. No doubt a child may have coincidental or complicated pneumonia, or gastro-enteritis, or tubercular meningitis, and die of these affections; and then you may examine the body, and you pretty well know what you will find. But first of all I must tell you that death, even from these secondary causes, is comparatively rare in the course of idiopathic remittent fever, considering the frequency of its occurrence, though death from them in the form of what we may call primary affections is common enough. Secondly, an examination after death from such secondary causes gives us no help in elucidating the diseased essence of remittent fever itself. I have never seen more than three cases, and in these the bodies were examined, that I could say they died from the fever—cases in which I could not determine that any particular local lesion really killed. It is true that what we may call slight head symptoms or abdominal symptoms did exist towards the termination, but, unless the child had died, we should never have dreamed of thinking that they would prove fatal, inasmuch as they did not approach the severity which the like symptoms constantly take on in the course of the fever, and from which we know children constantly recover. But after death we find some slight modifications in the meninges or of the intestinal mucous lining, and some might say these killed, and here lies the essence of the fever; but this would be, in my opinion, a most serious error.

Unfrequent as it may be, yet remittent fever does now and then prove fatal, independent of any of the serious complications I alluded to before; and when you examine these cases afterwards—that is to say, if I may judge from three examples, and what I can glean from other writers, as well as what I know about fever in the adult—you do neither find out satisfactorily why these cases had so unfavourable a result, nor in what the nature of the fatal fever essentially consisted. The last case I examined was about six weeks ago, with Mr. Dendy and Dr. Westley, in Agnes-street. It was that of a little boy, nearly two years of age; and, although it must be owned that there was just before death some stupor and other slight brain symptoms, yet on examination little was found from which we could reason as to cause and effect. The meningeal vessels were slightly congested, but there was no softening, effusion, or granular deposit anywhere. The follicles in the larger bowels were, to my eye, here and there hypertrophied and enlarged; but to Mr. Dendy, I remember, this was not so satisfactorily evident; and in the smaller intestines the agglomerated glands were more developed than usual, and the mesenteric glands were enlarged. But we could find nothing of which we could say, this is the lesion that must have proved fatal, or this is the thing which is the essence of the febrile disease. This case, also, was not an adynamic one, and it took me by surprise to find the child died. In the other two cases the type was adynamic, and rather more abdominal modifications were seen, but still of such a nature that we could lay no stress upon them. On reference to Dr. Copland you will find that he remarks, "The French pathologists view it as symptomatic of inflammation of the digestive mucous surface, but of the truth of this doctrine there is no conclusive evidence; *post-mortem* appearances certainly lend it no support. The few instances in which I have observed them presented chiefly enlargement of the mesenteric glands and of the spleen, with a few tubercles in the lungs. The digestive organs were not inflamed, but the intestines were distended by flatus, and their coats attenuated."

Similar changes of the bowels and mesenteric glands have been remarked by Hoffmann and Pemberton. It is evident that these do not reside in them does not lie the essential nature of the fever; nor can we find the latter in the following remarks of Dr. Davies:—"If neglected, the patient will be destroyed by irritation or inflammation of the mucous membrane of the bowels; or the case may terminate in fatal marasmus, or in enlargement of the mesenteric glands, or in scrofulous affections, and in rickets producing deformity." All these, and other things besides, may follow in the train of infantile remittent, and some of them may prove fatal, as complications or intercurrent affections, and a review of them gives us a notion as to their probable frequency of occurrence during the course of the original malady.

But the fever may, in rare cases, prove fatal by itself as a fever, and, on inspection after death, neither the cause of that death is marked by anatomical alterations, nor the essence of the febrile affection indicated. I may here use the words employed by one of the most philosophical writers in Great Britain on medicine, in relation to the idiopathic fever of adults, viz., "That, in adopting this view, we set aside, without hesitation, the objection that has been urged against the doctrine of idiopathic fever, that the term expresses only an abstraction, and therefore a nonentity; because what we mean to express by the term is not an *abstract* existence as distinguished from individual *facts*, but a *general* change or succession of changes common to all the organs, and to almost all the textures, of the body as distinguished from all *partial* changes and their effects."—(Alison's "Outlines of Pathol. and Prac. Physic.;" see also the "Pathologie Interne" de Grisolle.)

MALTESE HOSPITALS.—By the last mail from Malta we learn that Mr. J. B. H. Collings, assistant-surgeon of her Majesty's steamer Oberon, has, at the request of his Excellency the Governor, inspected the hospitals in Malta, and made a report on their efficiency, &c. This will be furnished on his return from the Ionian Islands and Greece.

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ORIGINAL CONTRIBUTIONS.

CLINICAL NOTES.

No. IX.

By RICHARD DE GUMBLETON DAUNT, Esq., M.D. (Edin.), Member of the Faculty of Physicians of Rio de Janeiro; and Member of, and late Honorary Secretary to, the Parisian Medical Society.

Besides the exceptional cases of thoracic inflammations noticed in the last of these aerial articles, the sanitary history of Campinas during the last months offers other points of interest in connection with the subject of epidemic constitutions. At the commencement of the rainy season, and when numerous cases of remittent and continued fever are wont to occur, there declared itself an epidemic neuralgia, taking a decidedly remittent character, and occupying in different patients different seats, and now chiefly the nerves of relation, now those distributed to the viscera; while, at the same time, the cases of fever were very much less numerous than usual. Happily, owing to the assistance afforded to diagnosis by the sudden stinging pains, like the sting of a hornet, peculiar to neuralgias, the true character of the cases was soon perceptible, though otherwise much difficulty would have occurred. The subjects of this epidemy (for thus, the frequent occurrence of the cases, the various circumstances under which they developed themselves, and the extent to which, during a certain period, the neuralgic character entered as a constituent element in the features of wholly independent and distinct varieties of diseased states, fully entitle them to be ranked) were not alone delicate, nervous persons of either sex, but as frequently those of a wholly opposite temperament, as, *e. gr.*, stout negroes used to field labour, &c. The treatment was fortunately more and more speedily successful than is usual in this disease. Sulphate of quinine formed its basis in combination with belladonna; and with these were conjoined occasionally, and to meet the indications of special cases, colchicum, bismuth, and nux vomica, with frictions either of nitrate of veratrine ointment or a strong tincture of the leaves of tobacco and the datura arborea. I usually gave from ℈j. to 3ss. of quinine in the twenty-four hours, with two or three grains of extract of belladonna; and in a couple of days full relief was, in nearly all the cases, obtained. It was to be remarked that cases in which the neuralgia took the form of the most intense pain of the head, orbit, or face, yielded much more readily than those in which the viscera either of the chest or abdomen were its apparent seat. In the last class a form of abdominal constipation was frequent, which, most unyielding to purgatives, was dissipated by the first doses of quinine and belladonna, or nux vomica. In some cases the extremities were so affected as to cause the patient to be firmly impressed with the belief that he was suffering from rheumatism.

Concomitant with the appearance of this epidemic neuralgia, the hooping-cough began to prevail extensively among children, and in general assumed an intensely spasmodic form, the only complication which I had occasion to see being a form of remittent fever, occasionally with a slight bronchitis. The cold-water affusion was of service in those patients who were free from any of the usual complications of the disease, and in whom its spasmodic character was most clearly marked. After a careful trial of most of the means recommended, I at last confined myself to the use of belladonna and the lobelia inflata, using quinine internally, or in frictions where an evening accession of fever occurred, and bismuth where the irritability of stomach was great, and sympathetic vomiting frequent. I had formed great expectations of the results to be obtained from the exhibition of the valerianates, but was disappointed, having in a most appropriate case given first the valerianates of zinc, and afterwards that of quinine in full doses, and for several days without any satisfactory result. I intend, however, to continue my trials of these salts, choosing always those cases of a purely nervous form, and free from local congestions. In one case, the subject being an elderly female who had escaped the disease when young, and in whom there existed a chronic disease of the heart, digitalis in large doses gave an immediate relief, soon followed by a perfect cure, and this after all the other usual remedies had been applied fruitlessly.

Gradually the neuralgiæ began to disappear as independent morbid states, and were replaced by the customary fevers, which, though appearing later than usual, were identical in character with those of the previous year. The fever which prevails in Campinas during the summer and autumn appears to be in all points identical with the classic fever of Greece and Italy, and so, very different from either the typhus of Ireland or the typhoid of France. It assumes at one time a partially remittent form, and at another a continued, with evening exacerbations; a form which a late French writer has classed as a new discovery, under the title of "Fièvre continue à quinquina;" but which possessed novelty solely from his previous ignorance of the geographical distribution of disease. In this fever local complications present themselves as in other essential fevers; and here, as in Europe, the doctrines of the morbid anatomists have produced equally deadly results. The treatment I employ—and with so great success that out of a number of at least 250 cases I count but two deaths, resulting in one case from a profuse critical suppuration in the parotids, and in abscesses which appeared in various regions of the body, and which carried off the patient from marasmus; the other case being that of a child, ten years old, whom I began to treat on the eighth day, when already speechless—is as follows:—During the first one, two, or three days, while the excitement is at its highest point, accompanied by violent gastric irritation, with vomiting, excessive thirst, &c., I use the cherry-laurel or bitter-almond water, in any mucilaginous vehicle, and apply leeches to the epigastrium, with quinine frictions in the course of the spine; and, should any state of the head, liver, or chest require it, I prescribe moderate bleeding. So soon as the gastric symptoms moderate, I begin the exhibition of quinine in full doses, to which I add, when any signs of collapse appear, the use of arnica and serpentaria, and, when nervous excitement is great, that of valerian, with revulsives from the first moment that anything like an unequal distribution of animal heat is perceived. When, however, the patient is severely attacked from the first invasion of the fever, I apply quinine internally from the very first, let the symptoms of local disease be as severe as they may, and no consideration induces me to discontinue it, let the tongue be dry, black, hard as it may, and the delirium and headache severe as it can be; for repeatedly in such circumstances I have witnessed, under the joint use of quinine, arnica, valerian, camphor, &c., the tongue lose its coat, become moist, natural in appearance, the delirium cease, and be replaced by natural sleep. The cherry-laurel-water I continue so long as gastric symptoms exist, and consider it of the greatest service, not alone in this fever, but in all others where irritation of the mucous membrane of any portion of the alimentary canal exists; and it may be given with safety to the youngest children. The water used here is of the strength recognised by the Prussian Pharmacopœia. In quinine applied externally in frictions I have also considerable confidence, and so apply it in all cases of disease of young children which present themselves during the existence of an epidemy of fever. The duration of this fever may be from eight days in mild to that of thirty-three in severe cases. A return to health is marked by an improvement in the state of the tongue, and gentle perspirations. I never in any case saw signs of ulceration of the intestinal glands, though on a few occasions a troublesome diarrhœa protracted convalescence, and required a continued use of bismuth for its extinction. From the happy results of the treatment employed by me, it might be inferred that the disease was not of a very serious nature, were it not that I have too frequently witnessed a proof to the contrary in the melancholy termination of cases left to themselves or treated on other principles. I purpose returning to this subject on a future occasion, but, nevertheless, will notice one or two points which the fever prevalent here illustrates. Those medical officers of the French army in the north of Africa who, after many *tâtonnements*, have at last perceived the true nature of the treatment which the continued fevers of that country require, speak of them as due to a more complete intoxication of the patient by the *malaric* poison than is required to give rise to an attack of ague, as being a more intense expression of the effects of the poison. Now, the fever observed in Campinas, and which is indifferently a remittent or a continued fever curable by quinine, is not attended by the principal circumstances on which their reasoning is based. Thus, intermittent fever is very rare in the district, and not more frequent at the decline of an epidemy of the remittent or continued form than when this is at its height. The continued fever is of very varying intensity in different subjects, in one placing life in extreme peril, in another so tractable as to yield to a mild bitter infusion with cyanide of potassium,—acting thus as having a real entity, and not as the uniformly-aggravated expression of another state. Though vegetable miasma are doubtless the cause of the fever, there is very little marshy ground in the district, and those who live near such, or on the margins of rivers, are more liable to ague than to the remittent or continued fever. The spleen was affected in a very small minority of the cases, while bronchial, gastric, and cerebral complications were every day seen. Convalescence was, in almost all the cases, tedious, and interrupted by various ailments of a neuralgic character, which, however, easily yielded to treatment. Convalescents being more susceptible to general causes of disease than those in health, the neuralgiæ which had ceased to appear as independent diseased states still evidenced the continued existence of their cause, though in diminished intensity, by their frequent attacks on those suffering from the effects of fever.

The remaining feature of interest in the medical history of the period now treated of which I have to mention is the prevalence of an affection which consisted in extreme lassitude and *malaise*, with aching pains of the loins and bones, loss of appetite, &c. The number of persons so affected was considerable, not alone in Campinas, but in distant points of the empire, as in Rio de Janeiro, Santos, Porto Alegre, &c.; and that it was also of a neuralgic character, as collateral circumstances would induce us to believe, was proved by the test of the *juvamina et lædentia*—aconite, combined with quinine, being a speedily effective remedy, a mercurial and jalap purge preceding when much *embarras gastrique* existed. In Rio de Janeiro, unhappily, Broussaism and expectancy are the prevailing systems, and thence came that the majority of the legitimate practitioners who treated such cases with saline mixture, decoctum graminis, barley-water, cold purgatives, &c., were singularly unsuccessful, and regarded the "polka fever" (for so its coetaneous appearance with polka fashions of all sorts caused it to be designated) as a most intractable disorder; whilst the homœopathists, whose intellectual development is unquestionably superior to their moral (I speak of those in Rio, and *cum scientiâ odiosæ*), made a lucky hit in the use of narcotics and antiperiodics, and availed themselves of this to draw favourable comparisons in support of their heresy. Another instance of medical science abased in the world's sight, owing to the imperfect knowledge and the schisms of those who assume to be its representatives: a danger now greater than formerly, when medicine had fewer but worthier and more learned exponents, whose influence prevented that corruption of the scientific creed which an impure eclecticism and a more democratic state of the profession now favours; so that controversy becomes daily more

confused, and our opponents, skilfully substituting the favourite doctrines of the day as objects of attack, in place of the real substance of orthodox medical faith, more unknown to the presumed champions of the profession than to themselves, often appear to gain a victory,—the impression on those who witness the dispute being incredulity on the one hand, and a submission to the grossest charlatanism on the other, all departing from the prudent advice of Saint Basil:—"Neque fugienda penitus ars medicinæ est, neque rursum omnia in ea salutis nostræ præsidia collocanda: sed quemadmodum licet gubernatori navim committamus, Deum tamen, ut ne ex alto salvet incolumes, oramus; sic cum medicum adhibemus, idque ratio fieri concedit, neutiquam a spe illius erga nos bonitatis debemus discedere."

City of Campinas, Province of San Paulo, Brazil, July, 1847.

WOUNDS OF THE THORACIC REGION, OR CHEST; SUPERFICIAL, PENETRATING, AND COMPLICATED.

By Dr. KNOX.

The interesting lectures on wounds of the thorax, now being published in the *Medical Times*, recal to my memory some few cases I have seen; a brief account of them may, perhaps, be agreeable to some readers of the *Medical Times*.

About three weeks, or it may be a little more, after the action of Waterloo, or Mont St. John, as it is more commonly called, the chief of the medical staff, desirous of relieving the hospitals of Brussels of a portion of the wounded, sent a good many to the port of Ostend, for the purpose of embarkation for England. Of these wounded a few had entirely recovered, and were sent to England merely for the purpose of being invalided; but in the greater number by far their wounds were still open, and they consequently still required careful surgical treatment. Of the wounded so sent to Ostend between eighty and ninety were shipped on board a well found and roomy ship, a transport, and I was selected to see them safe to England, to hand them over to the medical staff of Haslar Hospital, and thereafter to return without delay to Brussels.

As I had no assistant the duties were urgent, most pressing, and harassing, so that I scarcely had six hours' sleep during the six or seven days we were at sea. The service was new to me, as I had never been at sea before with a shipload of wounded men; I had, nevertheless, the good fortune to hand over the whole party to the naval medical staff without losing a single life. As no notes were kept, nor could be kept under the pressure of such onerous duties, I shall merely mention those circumstances which neither time nor circumstances have effaced from my memory. My professional brethren will be pleased to remember that the events of which I shall first speak took place in the summer of 1815; a few occurred subsequently.

I. Amongst the wounded were some ten or twelve who had received wounds in the chest, inflicted by musket-balls, by the bayonet (and these were the most numerous), or by the long cut-and-thrust sword of the French cavalry. The men mostly belonged to our light cavalry regiments—a description of force which I was given to understand proved of little or no use against the heavy armed cavalry, cuirassiers, and guards of Napoleon's army. Of these some had entirely recovered; in others the wounds were still open and suppurating; in some the sword or ball had traversed the chest, entering in front and passing out at the back. The men were particularly anxious that I should distinctly understand that they had met the enemy face to face, and that the sword or ball entered on the fore part of the chest and passed out at the back. I was willing to give these brave young men (for they were worthy young men) every credit, and to believe their word, although I knew well that our light cavalry had been completely defeated in every encounter by the French cavalry, composed of much heavier men—men better armed, and, by their race, much better swordsmen. But to return. The conclusions I arrived at as regarded wounds of the chest were, that, when actions become severe, such wounds are much more frequent than is believed; that many, no doubt, die on the field of battle; and that generally the less the surgeon interferes the better. One thing I observed especially, that, even when the cases were doing well, men so wounded could not be indulged even with the smallest quantity of ordinary French wine. It kindled up inflammation, difficult breathing, flushed face, and other dangerous symptoms. To the general reader I leave the general conclusion, that what they have been told by the silly newspapers and pamphleteers of the day, panderers to prejudices and vanities of the mob, about the difficulty experienced in bringing French soldiers up to the bayonet, is absurdly false, and unworthy even a passing notice. The Celtic race, wherever found, will come to close quarters and cross swords much more quickly than any other race now living. The sword is their instrument of attack and defence, as it has ever been with all Celtic races. In future conflicts it will be safest for our leaders to place the primest and strongest men they can find on horseback; and a cuirass and helmet will be found of much use when opposed to the warlike guards of France.

Amongst the wounded was a young man, tall, thin, emaciated, colourless; he appeared to be dying; so, on getting on to the deck, I singled him out immediately, as clearly the person who was entitled to my earliest notice and care. He belonged, I think, to a cavalry regiment. This case was not one of the chest, but it elucidates a principle taught me by my esteemed friend and teacher Mr. Abernethy.

This young soldier had been wounded just under the left ear by a thrust of a cuirassier's sword; it had passed directly through the parotid glands, making its way towards the deep vessels. Brought into Brussels with the wounded, he lay there for about three weeks, bleeding a little day by day; compresses of lint and rags were put on and looked at occasionally, but no one had the courage to clean them off and face the wound. Accordingly, when I saw him more than three weeks after, as he lay on the deck, with his pale and blanched lips, sunken eye, and melancholy, desponding look, with a heap of bloody rags of all descriptions piled over his neck and face, I instinctively felt that he should be attended to, even before the decks were cleared, or the crew had slipped their hold of the stormy pier of Ostend. The orderly sergeant with his assistants were by—brave and bold men, cool under all circumstances, as well disciplined and well behaved men almost always are; but, on my desiring them to remove the bundle of rags and bandages which the Brussels staff had piled over the neck of this poor lad, they hesitated, and assured me that we should on the instant have dreadful bleeding and death. But I, chief in command for the time on board that ship, ordered everything to be removed, and it was done. I then saw the wound, which, probably, had not been fairly looked at since the 18th or 20th of June. It was triangular in shape, and deep. I did not care to probe it much, but the probe did penetrate seemingly for about an inch. It bled a little, but the blood seemed to come from a vein.

Mr. Abernethy taught me, at least, two great principles, which I have never forgotten. First, when you attach much importance to the doing of anything, you had better do it yourself; this inestimable maxim will apply, I believe, to most affairs in life. Secondly, when there is bleeding from a wound, fresh or otherwise, and you have reason to believe that it comes from a vessel of dangerous magnitude, then lose no time in securing it in the usual way, by efficient pressure against a bone, or by ligature; but if you cannot make efficient pressure, and yet believe that it is but a muscular or other small thread which has been wounded, then refrain from all pressure and leave it to simple exposure to the fresh air, aided, as the case may be, by a wet rag, rest, and a favourable position. On these principles I treated the case of this poor lad. In a few days he could walk about the deck, the colour returned to his cheeks, and his cheerful and pleased look, on seeing me, told how deeply he appreciated the services I had rendered him. Duty is a good word everywhere, and particularly in the service; but a deep feeling for the misfortunes of others stands somewhat higher as a principle. It is with unfeigned pleasure I here record my experience of my professional brethren; it is not to them that I require to point out the superiority of high principle to mere human duties, paid for by the state, and so supposed to be adequately recompensed.

To my success in this first case I attributed my ultimate success on board that vessel; and the confidence was so great that my merest suggestions became an order which all were most anxious to obey; the men became active and intelligent; the orderlies scarcely slept; so that, relieved of all mechanical care, I could devote my whole attention to those more dangerous cases which, unaided as I was by any consultation, excited in me the deepest anxiety. A useful lesson I got on this occasion—on great emergencies trust in yourself.

(To be continued.)

ON THE NATURE AND TREATMENT OF DISEASES AND AFFECTIONS OF THE HIP-JOINT, AND ON THE BENEFICIAL MEDICINAL EFFECTS OF THE EXHIBITION OF PROTEINE IN CASES OF CARIES.

By E. W. TUSON, F.R.S., F.L.S., Surgeon (for many years) to the Middlesex Hospital, Lecturer on Anatomy and Physiology, &c. &c.

The hip is one of the largest joints of the human body in its outward appearance, but not in the formation of its osseous structure. It is surrounded by numerous muscles and soft parts, which serve to protect it from external violence and injury; but, like all other joints, it is subject to inflammatory and other affections, rendered the more difficult to detect on account of the articulation of the bones being deeper seated, consequently the nature of the affections become more liable to be mistaken. The greater our knowledge and our investigation into these disorders, the greater becomes our skill to detect the character of the complaints when they are presented to our view; and this has induced me to make the following practical remarks, which I trust will prove beneficial and instructive.

The exciting causes which produce disease of the hip-joint are external injury immediately over or near the joint itself; violence occurring when kneeling or standing; horse exercise; fast running, jumping, or falling with the thighs extended or spread out; straining the ligaments or soft parts that enter into the structure of the joint; the application of cold; remaining in damp or wet places, or sitting in unchanged garments after having been exposed to the rain. In many instances we are able by proper investigation to trace a cause for the appearance of the disease; but sometimes we are unable by the strictest inquiry to discover or to account for its appearance, except we attribute it to constitutional disturbance, or a predisposition in the system to inflammatory or other affections. Diseases of the hip vary in their nature, the same as the diseases of other joints. Some are of a scrofulous character, or ultimately sink into this class, while other affections cannot be suspected to have any tendency to that complaint. Inflammation at first makes its appearance, which may terminate (although rarely) in resolution, or the restoration of the parts affected to their natural healthy state; in effusion of fluid into the joint; in ulceration of the cartilages of the articulating surfaces; in caries of the head of the femur, or of the acetabulum, or of both; in consequitive dislocation; in anchylosis; in abscess, accompanied by hectic fever

and glandal emaciation. In affections of other joints, where the disease has progressed unchecked, and the symptoms become urgent, we can relieve this patient's sufferings by amputation; but not so the disease of the hip-joint, for the insidious complaint extending frequently to the basin of the pelvis, the parts affected cannot thus widely be removed by the science of operative surgery, and the patients have not even this last hope remaining, that the removal of the parts might disencumber them of the disease, nor have they the consolation left them that, should a cure be fortunately accomplished, they are free from the disease; for even after the complaint has ceased, and the head of the femur removed from its proper cavity, nature having formed a fresh articulation, this new joint may be the seat of fresh disease, or the opposite hip may become affected. It is fortunate for us, who are all liable to be visited by this disease, that such results are very rare, and only follow from some peculiarity in the system.

The commencement of disease of the hip is characterized by a slight limping or weakness of the affected limb, by an uneasiness or constant pain in the groin, by a pain or an uneasiness at the inner part of the knee or in the course of the vastus externus, or by a fixed pain behind the trochanter major. Upon examining the hip there is little or no swelling or discoloration to be observed; and, as this articulation often appears entirely free from any visible enlargement and change of colour, it is but too frequently disregarded or treated as a complaint of no importance, not only by the young, but also in patients of every age; the disease, therefore, continues until other and more important symptoms claim greater attention and call for some means of relief.

Very frequently the patient will complain of the whole of the pain being seated at the knee-joint, and there will be a slight weakness or limping of the affected limb, sometimes so trivial as not to excite notice; and, even when seen by superficial observers, the mischief will be considered to result from the knee, and consequently the remedies applied to that joint; so that the malady progresses uncontrolled until, from a simple inflammatory action in the parts, it advances to another and more serious stage of the complaint, which requires such remedies as are more accordant to the dictates of surgical science.

At other times the whole of the pain will be situated at one spot, at the inner or central part of the groin, which causes the patient great uneasiness and frequent restlessness. In children the pain is often so severe that the patient will cry and even shudder when the affected limb is moved or touched. This pain will continue for some minutes when the inflammatory action is slight, and for a longer period when the mischief exists to a greater degree; but sometimes, when the inflammation in the joint has been fully established, and the disease advanced to the ulcerative stage, the pain will last for hours at a time, and frequently during the continuance of the night. When the groin is pressed the pain is increased, and often, when we attempt to touch the part, the patient will take hold of our hands to prevent us applying the slightest pressure. In some cases the pain will extend down the thigh in the course of one or more of the branches of the anterior crural nerve. This pain has been considered to result from pressure against this nerve as it passes beneath Poupart's ligament, over the union of the iliacus internus and psoas magnus muscles, and no doubt results from the inflammatory or other stages of the disease of the hip being situated at the most vascular part of the joint, extending along the ligamentum teres, particularly where it is so broadly attached to the acetabulum.

When the disease of the hip is considerable, the patient will dread the slightest movement; any accidental touch of the knee or foot will cause the greatest pain; the motion produced by a person walking in the room will sometimes cause an acceleration of their sufferings. It too frequently happens that the pain is mistaken, or does not meet with such remedies that are most likely to allay the action set up in the parts which produce it. This is extremely detrimental, because at the commencement of the complaint, which is an inopient stage, rest, the limb being placed so that little or no pressure be applied to the inflamed parts, the application of leeches, warm fomentations, and other remedies, will do more in a short time than when persevered in for a longer period at a later stage of the complaint, and even at a more advanced period fail to produce that effect which the same means might do at the appearance of the malady.

Although the pain may be situated at the knee, it can be easily determined that the real seat of the complaint is not in that joint; for, by properly fixing the thigh so as to keep the hip-joint free from any motion, the knee can be moved freely in almost every direction, without increasing the uneasiness of the patient; and at a later period of the complaint we readily detect that the disease is not in the knee, by the gradual wasting away of the thigh and the whole limb below the real seat of the malady.

The pain experienced by patients suffering under affections of the hip resembles, in a measure, rheumatism in the adult, but in the young subject it is often set down as "growing pains." This, perhaps, is owing to the pain varying in its situation; but as the disease advances it becomes considerably increased, accompanied frequently with grinding of the teeth. The patient being sometimes roused when sleeping by painful startings of the affected leg, occasionally some relief will be found by keeping the limb in one position; but even this soon ceases as the disease progresses.

A patient labouring under an affection of the hip soon falls into the habit of resting the whole weight of the body upon the opposite limb; the thigh of the affected side is advanced and bent forward, so that the foot can only partially touch the ground; every attempt to extend the limb occasions increased pain, so that it is kept in this more comfortable position.

At the commencement of the disease the affected limb becomes longer than the other, and there are various opinions respecting the cause of its elongation in the early stage. Some of our foreign practitioners have accounted for it by the oblique situation of the pelvis, the spine being bent to accommodate itself to the disease of the hip; which no doubt may be correct in some cases, but in other instances, and in many that have fallen under my observation, the limb has been lengthened at an early period by a shortening of the membranes covering the articulating surfaces of the joint, or by some effusion of fluid into the joint tending to prevent the bones being so closely in contact as they are naturally and when free from morbid affection.

The position of the foot and pointing of the toes of the affected leg is another characteristic of the complaint. At an early period the toes point to the ground, sometimes in a direct line, at other times the great toe rests on the joint of the toe of the opposite side, or upon the upper part of the opposite foot; the knee is drawn inwards and over the one of the other leg, and in some advanced cases the foot is turned completely outwards or directly backwards.

To a practical eye the contour and the whole appearance of the hip-joint, when the patient is placed in the erect position, usually points out the seat of the mischief; viewing the one on the opposite in a healthy state, and comparing it with the other may assist us in this respect, without, indeed, looking to the position of the foot; but, should any doubt remain, this and the other joint already mentioned will, under ordinary circumstances, enable us to decide upon the seat of the disease. It is of importance that we should be fully satisfied on this point, but we ought to take into consideration that a lengthened examination and much manipulation increase the sufferings of the patient and tend to accelerate the inflammatory disposition.

The length of the limb is not of long duration for it is sooner or later succeeded by a shortening of the affected member; a luxation of the head of the femur frequently takes place (consequently dislocation), and the head of the bone becomes generally drawn into the external iliac fossa, between the gluteus maximus and of minimus. Thus, then, the head of the bone is covered by two of the gluteal muscles. The foot is in the same position as in dislocation upon the head of the femur upwards and outwards; the limb is shortened, the thigh bent forward, the toes turned inwards, and the foot does not admit of being rotated outwards. The shortening of the limb increases as the disease progresses, and the position of the thigh becomes more unnaturally drawn across the other and advanced forwards; but the positions of the foot and the thigh are not always the same in every case, as the head of the femur does not always take the same direction, as its situation depends upon the action of those muscles which produce its displacement; and this we can understand by considering the causes which produce consecutive dislocation. It may result from effusion into the joints; ulceration of the cartilages lining the acetabulum; caries of the acetabulum; caries of the head of the femur; and caries of both the acetabulum and the head of the femur.

Effusion into the Joint.—It has been already stated that inflammation of the hip-joint is the primary affection, and effusion a result of the inflammation. The nature of the effusion or collection of fluid into the joint may be synovia, sanies, or pus, or a combination of these, but the result will be the same, and occurs in the following manner:—The effusion of fluid gradually increasing, the head of the femur no longer remains in contact with the acetabulum, but is pushed gradually out of its situation by the fluid until the head of the bone approaches the edge of the articular cavity, where there is little resistance, so that the muscles that have the greatest power, or those that are more immediately in action at the time, cause the displacement of the head of the bone. It does not always follow that when effusion into the joint occurs or suppuration takes place, dislocation must necessarily result, for sometimes, and not unfrequently, Nature forms a more advantageous relief with much less destruction to the joint. The ligaments becoming distended by the increased effusion, they ulcerate at one part and the fluid becomes diffused into the surrounding and more superficial structure. The head of the thigh-bone, therefore, regains its natural position, and sometimes the fluid becomes more superficial and is discharged through the skin.

Ulceration of the Cartilage lining the Acetabulum.—Inflammation of the hip-joint sometimes terminates in ulceration or absorption of the cartilages, and, as the bony structure of the cavity only forms about the third of the depth of the acetabulum, when the cartilage has become destroyed there is little obstruction to prevent the muscles from producing a displacement of the head of the bone, and that part which has ulcerated the most is the part where the head of the bone is most likely to become displaced, provided the power of the muscles is sufficient in that direction to draw the head of the bone out of its place, or are not counteracted by those on the opposite side of the hip-joint.

Caries of the Acetabulum.—The ulcerative process sometimes progresses so rapidly that the structure of the bone becomes in a state of caries, when the whole cavity is soon destroyed by the disease; and cases have come under my notice where there has been little appearance of the acetabulum left. When this takes place a dislocation of the hip soon follows, the head of the femur taking that situation which it is driven into, and Nature frequently forms a fresh cavity for the reception of the head of the bone. There is greater chance of this occurring when the head of the femur is free from disease, as it is driven into a situation where the parts are in a sound state, Nature then has a greater chance of forming a fresh joint by the pressure of the head of the

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bone against the os innominatum, consequently there is less danger of the case terminating in a stiff joint, which frequently follows when the head of the thigh-bone is diseased; for then the complaint is carried into a new situation, and the surrounding parts become contaminated by the discharge and the state of caries existing in the head of the femur.

Caries of the Head of the Femur.—The ulcerative process attacks the cartilage and head of the femur to a smaller or greater extent, according to the activity of the disease, and the head of the bone becomes destroyed by caries. The remaining portion of the neck of the bone becomes occasionally removed by the action of the muscles, when it destroys the healthy part that it is drawn into, sometimes to a great extent.

Caries of both the Acetabulum and Head of the Femur.—This is a more extensive stage of the ulcerative process. When the cartilages of the acetabulum and on the head of the femur have been destroyed, and the bones become in a state of caries, the disease increases sometimes to a very great extent, so as to destroy the whole of the head of the femur and side of the acetabulum, when consequitive dislocation sometimes results. At other times, although the disease progresses to such an extent, it is by no means absolute that a dislocation must occur, for the whole of the head of the femur and part of its trunk may be destroyed by caries, as also the acetabulum, and the remaining parts may keep in their position, or not be displaced externally. In a case that was under my treatment, a few years since, a young man, twenty-seven years of age, had suffered from disease of the hip for a considerable time, and had passed several pieces of bone with his motions. He died in the hospital, and, upon examining the hip, an extensive state of caries was to be observed; the central part of the acetabulum had been destroyed, and by the action of the surrounding muscles of the hip, the head of the femur, at least the part that had not been destroyed by the disease, had been forced into the pelvis; abscesses had formed in that cavity which had broken in several places, one or two on the inner side of the tuber ischii, and one in particular on the inner surface of the rectum, so that the small pieces of bone had escaped by that aperture. So great was the disease in this case, and so severe the sufferings of the poor patient, that all remedies failed to afford him the slightest relief.

The situation that the head of the femur falls into in consequitive dislocations depends upon the power of the muscles, and particularly upon those muscles that are in action when the displacement occurs, and the position of the thigh. Cases have fallen under my notice where the change of position of the parts of the hip-joint has taken place when the patients have been moved from one room to another, or by being carried down stairs, when the foot has been suddenly or accidently struck or touched. There is a case on record of a spontaneous dislocation of the hip, upwards, forwards, and a little inwards, and it is said that this is the only exception.

I remember that one day my late respected friend Sir Astley Cooper called my attention to a female pelvis, where there were acetabula on either side of the os innominatum. These were slight and shallow cavities resembling the glenoid cavity, but had irregular edges; they were situated at the dorsum of the ilium, at the anterior edge of the sacro-iliac foramen. In respect to the period that a displacement of the head of the femur occurs, no precise time can be mentioned, as it will depend upon the cause that may produce it: at an early period, effusion may take place and dislocation follow; and at a very late period, after the disease of the hip has existed for some years, caries may result, and be followed by dislocation. When disease of the hip-joint commences at an early age, before the three bones which form the acetabulum (the ischium, ilium, and pubis) are fairly united, there is danger of the connecting medium becoming absorbed, as has been the cause in the bones to separate, leaving a space where the head of the femur may be drawn so as to enter the interior of the pelvis, where it sometimes acts as an extraneous body, creating considerable mischief and suffering to the patient.

It is only of late years that we have become agreed as to the primary seat of the commencement of disease of the hip-joint. It was formerly erroneously supposed that the surrounding soft parts were the first to become affected, and that the disease then extended to the joint itself; but by experience and observation, and by the researches of science, we are now convinced that the original seat of this complaint may be either in the ligaments, the membrane covering the cartilage of the articulating surfaces, the articulating surfaces themselves, the membrane connecting the cartilage to the bone, or in the bones themselves. The first attack is inflammatory, which may pass into the suppurative or ulcerative stage. The inflammation may pass from an acute into a chronic form. When acute, the surrounding parts become tense and extremely painful; the skin is sometimes red, and inflammatory fever prevails. When suppuration takes place the severity of the pain abates, a swelling is formed in the vicinity of the joint, and a pointing of the collection soon follows. Sometimes the pain is aggravated by spasm of the muscles, the thigh is bent forward and cannot be extended, there are frequent startings and catchings during sleep, the pulse becomes quick, the skin hot and dry, the tongue furred, and general excitement prevails through the whole system. A collection sometimes forms below the trochanter major, sometimes at the inside of the thigh; but occasionally abscesses break in different places, which, by constant draining, cause the patient to become weaker and more debilitated in every respect; hectic fever soon follows with its usual symptoms. Scrofula in the system generally will frequently produce disease of the hip-joint, by the complaint being situated either in the membranes, cartilages, or bones entering into the formation of the articulation; and this character of the complaint is by far the most common: it may arise from hereditary predisposition, called into action by some exciting cause, or may result from constitutional tendency. Occasionally this affection is characterized by a scrofulous diathesis; but sometimes, as in diseases of the spine of a similar nature, no appearance or any disposition in the system generally to scrofula has ever manifested itself, or is it attended with the usual appearance of the skin, lips, hair, enlarged glands, or other indications, to enable us to determine the nature of the affection. In such cases we usually find some difficulty in forming a correct opinion, and this can only be done by carefully watching the patient and the symptoms as they present themselves, and a thorough acquaintance with similar cases under nearly the same circumstances. The symptoms yielding to such remedies as are employed for the treatment of scrofula will sometimes decide us upon the nature of the affection.

The injudicious administration of mercurial preparations in infancy, by debilitating the system and weakening the constitution, preventing the proper growth and formation of the various parts of the body, and preventing them being in a healthy state, will unfortunately but too frequently predispose the hip-joint to a state of disease which, when once commenced, will necessarily increase by the same remedies being employed. Another and frequent cause of the appearance of disease of the hip is a practice common amongst the poor—the chastisement of their children with the hand over the hip-joints, causing concussion of the parts that enter into the formation of the joints. Many cases have fallen under my care which I am satisfied have been produced in this way.

In the examination of pathological specimens of disease of the hip-joint we sometimes find the head of the femur extremely small, and quite out of proportion to the one on the other side; this has been attributed to absorption, or a gradual wasting away of the head of the bone; but it very frequently results from the disease, preventing the growth of this part, which has ceased of the same size as when the redundancy first commenced, or increases but little, certainly not in the same proportion as the hip on the opposite side. The acetabulum is also sometimes found in the same contracted state: the disease in such cases must have been confined to the structure of the head of the femur and acetabulum. There is a preparation in the museum of the Middlesex Hospital, where both the head of the femur and acetabulum are remarkably small and unhealthy, caries of the whole of the femur and surrounding bones forming the injured part of the hip-joint is to be observed to a considerable extent. The patient had here attempted to cure the disease in the hip by uniting the bones together, but caries had followed to a great extent. This, no doubt, resulted from there also the disease of the joint had been cured by anchylosis.

(To be continued.)

INTERMITTENT FEVER IN AN INFANT.

Communicated by SAMUEL S. DYER, Esq., Surgeon, Ringwood.

A strong and healthy-looking child, ten months old, of respectable parents, living in an open part of this town, was brought to me on the 11th ult., when its mother gave me the following brief history of its illness:—That it was of a week's duration, up to which time, from its birth, the child had been remarkably healthy; that for the last few days its bowels had acted very irregularly, the secretions scanty and offensive; that it had only appeared to suffer pain twice—the preceding night, and two evenings before that; that this symptom was then of sudden occurrence, and from the drawing up of knees, &c., it seemed as if the child was griped. This was accompanied with pallid countenance and shivering coldness of the surface, lasting three hours, when reaction occurred, continuing an hour and ending in the child's falling asleep. To all this I did not at the time pay any particular attention, as I had never seen, nor even recollected to have heard of, intermittent fever in so young a subject; and, considering it as symptomatic and dependent on vitiated secretions, I gave a few aperient powders, requesting that one should be taken each night. As the child was suckled and thriving, I considered it unnecessary to regulate its diet or to give any advice respecting it.

March 15. The evacuations are more healthy, but this is all the amendment, as the febrile symptoms not only continue unabated, but have increased in severity, and gained three hours on every reappearance; so that, doubtless, this intermittent form of fever would soon have gone into one from remittent to continuous. I now abandoned the idea of its being a symptom connected with its cause, and, having just then read Dr. Willshire's capital lecture (reported in the *Medical Times* for the 4th ult.), I adopted a similar plan of treatment, ordering quinæ disulph. gr. vij.; acid. sulph. dil., gr. xij.; syr. aurant. ʒij.; aquæ, ʒx. M. cap. cochl. minim ter quotidie. From this time there was not a symptom of ague, and after taking a dozen doses of the quinine the child could be pronounced as being quite well.

USE OF CHLOROFORM IN MIDWIFERY.

Communicated by WM. HALLAM, Esq., M.R.C.S., Newcastle, Staffordshire.

I was summoned this morning (Feb. 23), at five A.M., to assist my friend Mr. S. M. Turner, at an arm-presentation case. The patient, Mrs. M., had been in labour some hours before I saw her; the liquor amnii had escaped; the right shoulder was impacted low down in the cavity of the pelvis; the whole of the arm much swollen, extending beyond the os externum. The parturient pains were strong and almost without intermission, so that it was impossible to turn the child, under the circumstances. After waiting

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some time the pains somewhat subsided, and we made an unsuccessful attempt. After a consultation with my friend, we decided on administering chloroform before we again made an attempt to turn the child. About thirty to forty drops of the chloroform, on a warm moist sponge, were applied over the mouth and nostrils, and covered with a piece of oiled silk. In the course of a minute the patient was under its influence. On introducing the hand, we found to our astonishment that there was *not the slightest uterine action*. Without difficulty the feet were brought down, the delivery speedily accomplished, and the placenta extracted—the patient remaining unconscious the whole time, which was about fifteen minutes, and not manifesting the slightest sensation of pain. On admitting a little air into the room, and dashing cold water on the face, the patient was easily awoke, and to her great surprise found she had been released from her burden, and expressed much thankfulness that all was over.

I imagine that this valuable agent (chloroform) will be found of great assistance to the accoucheur in similar cases to the above, and in operative midwifery generally, and a great boon to the female sex in the hour of "Nature's sorrow."

The most remarkable feature in the above case was the entire suspension of uterine action.

ON MURIATE OF OPIUM.

By J. G. NICHOL, M.D., Crook, Durham.

During the last ten or twelve years I have prepared and prescribed a solution of opium, which I think is not mentioned in any work on materia medica, with which I am acquainted. I use powdered Turkey opium and water, pretty strongly acidulated with muriatic acid. I have found, by experience, that this is the best anodyne I have ever prescribed. I see, in Dr. Pereira's "Materia Medica," that mention is made of Dr. Porter's solution of opium in citric acid. I made and used the same sort of preparation ten years ago, but it did not answer: it caused a great deal of headache and other unpleasant symptoms; moreover the solution became muddy, and appeared to be decomposed, therefore I gave up using it. I have called this preparation of mine muriate of opium, but, perhaps, it is not a very correct name. I may mention that I prepared solutions of opium with acetic, nitric, sulphuric, citric, tartaric, and muriatic acids, and also prescribed them many years ago; but the muriatic solution was vastly superior to any of the others in every respect. All of them produced headache with the exception of the muriatic. I prefer muriate of opium to the tincture, wine, or powder of opium, and also to the muriate and acetate of morphia; in fact, to any other preparation of opium. It never makes my head ache, but all the other preparations do. My preparation is made according to the following formula:—

Take of the best powdered opium, ℈j.; muriatic acid, ℥j.; distilled water, ℥xix. Mix.

Shake this mixture very frequently every day, during fourteen days, then strain and filter. The dose is from twenty to forty drops, according to circumstances. Many of my medical friends have tried this preparation, and they highly approve of it.

THE BLANE MEDALS. — These prizes, bequeathed by the late Sir Gilbert Blane to two such naval surgeons, every two years, as should produce, to the satisfaction of the presidents of the Royal Colleges of Physicians and Surgeons, the most approved journals of their practice, while in active service in her Majesty's ships, have just been awarded to Dr. James Wingate Johnston, one of the deputy inspectors now doing duty on board H.M.S. Vindictive, on the West India station, and Dr. T. Russell Dunn, surgeon of the Powerful, of eighty-four guns, now at Portsmouth.

PROGRESS OF MEDICAL SCIENCE.

The last meetings of the Academies of Science and Medicine are totally devoid of medical interest.

DYSTOCIA.

We read the following interesting case in the "Revue Medico-Chirurgicale:"—

Case.—**A young woman, aged twenty, had arrived at the conclusion of her first pregnancy without any other accident than an erythematous eruption of the abdominal parietes. On Dec. 4, 1847, some pains were experienced during the night, and Dr. Carrière found the os uteri effaced, but dilated only to the size of a sixpence; he distinctly felt the head of a fœtus through the uterine walls. In the afternoon labour had progressed, and it was with no small surprise that Dr. Carrière found in the vagina the right foot of a child; the left foot soon was recognised also, and at eight o'clock in the evening the pelvis had passed. These parts were remarkably small, and the surgeon flattered himself that delivery would present no further difficulty; he was, therefore, considerably astonished at the obstacles he met with to the extraction of the arms, and at the absolute impossibility of disengaging the head, notwithstanding vigorous tractions. The umbilical chord had ceased to beat, and time became a great object. On introducing the hand he found that a second head, that which had been felt in the morning, had descended into the excavation, and that the head of the fœtus whose body had already passed was retained in the pelvis by the former having caused the expelled body of one fœtus to be raised. Dr. Carrière applied the forceps upon the head of the other, and after a few minutes extracted a living child; the birth of the second child took place a few minutes later without difficulty, but it had ceased to live. The two placentas were united in one part only of their circumference. The mother and the surviving child did well.**

HISTORY OF THE CHOLERA OBSERVED AT CONSTANTINOPLE DURING THE WINTER OF 1847-48. By M. Monneret, Professor Agrégé of the Faculty of Paris.

(Concluded from p. 459.)

Is the cholera of Constantinople to be referred to an epidemic cause? This question must receive an affirmative answer, when it is recollected that cholera is in that country an accidental and unknown affection, and that Turkey was invaded only after neighbouring climates had been visited by the scourge. I may, however, remark that several of the leading features of epidemics were here imperfectly delineated. In the first place, the intervention of visceral disease seems to have been indispensable to its original development. It is only by attacking subjects already ailing, whose constitutions were powerless against the agency of the morbid cause, that the epidemic influence found sufficient strength to produce the first choleriform accidents. It appeared to act after the fashion of those medical constitutions which produce in reigning disorders a common pathological form and leading symptoms which can be only traced to an unknown atmospheric influence. In a word, the epidemic was mitigated to that degree that in only one-third of the cases, or thereabouts, was the disease intense and fatal. I insist upon this point, because I am induced to think that, if cholera visited France, it would appear in a mild form, and under the influence of appreciable causes which I will now examine.

Besides the epidemic agency, others might be classed with the predisposing causes of cholera. They are so far important to be known that, if by wise hygienic precautions, they could be neutralized, populations might be preserved from the disease. For my part, I am perfectly convinced that, if cholera showed itself in France with the forms and progress observed at Constantinople, the cases might be rendered milder and less numerous by the removal of the causes which will now occupy my attention.

Constantinople is an admirably situated city, but on all sides surrounded by the sea, which furnishes continual moisture. The streets, badly paved, are muddy, always covered with filth and offal of every description, and exhale the most noxious vapours. During December the rain was uninterrupted, and accompanied constantly by a N.N.E. wind. The sky was clouded, and on three occasions heavy falls of snow took place. The thermometer never rose above 12° Centigrade (54° F.), and during ten days varied from + 2½° (37°) and 12°. These meteorological circumstances are, doubtless, insufficient to explain the development of cholera, but they were predisposing causes, and must be taken into account, particularly when we notice the disease almost exclusively attacking soldiers and sailors. Thus the unusual coldness of the season at Constantinople was severely felt by the soldiers, to whom the uniform afforded but a poor protection. Besides, the duty which they were compelled to perform on board the fleet exposed them more than all others to the pernicious influence of a cold and damp atmosphere. It was in the midst of these circumstances that most subjects were attacked with simple diarrhœa or with cholerine, which might have been easily prevented by proper attention to hygienic measures.

The crowding of the crews was another cause which should be taken into consideration. Although the ships, perfectly similar to ours, are kept with extreme neatness, still the too great accumulation of the men had an undoubted share in the development of cholera.

Other causes also acted upon the soldiers, and more especially upon the sailors: the food delivered on board is insufficient; the amount of meat distributed is too small, and is not, as in our navy, compensated by a daily ration of wine, which cannot be replaced by the bad coffee which is served out to the men; fruit, particularly water-melons, and fish, which is exceedingly cheap, are sought for with avidity, and when taken in too large quantities produce disturbances of digestion, diarrhœa, and obstinate dysentery. Physicians of the navy assured me that many cases of nostalgia had been observed amongst the soldiers on board; no service could be obtained from them; they lost their appetite, became affected with diarrhœa, and were seized with cholerine and Asiatic cholera, after having for several weeks offered all the signs of consumption.

Thus, evident hygienic causes assisted in the development of the cholera at Constantinople; in many patients, cold, crowding, unwholesome and insufficient food, in others, depressing moral causes, exercised a morbid action which cannot be doubted.

Another order of causes must be sought for in the diseased condition of certain viscera; I have already remarked that the first patients affected were mostly suffering under visceral derangement.

Thus, in general, the epidemic cause was not sufficient to produce cholera, and the intervention of some other agency, usually appreciable, was required. This induces me to think that the specific and hidden cause of cholera was very weak in the epidemic of Constantinople. This remark is most important for the European populations which have to dread the invasion of the disease. Is it not evident that, if it showed itself in France with the forms and symptoms observed in Constantinople, it would be possible to prevent its development, or at least to lessen its gravity, by removing the causes I have indicated, and by preparing instructions in which the means of avoiding their injurious influence would be pointed out?

Let us now examine if the cholera of Constantinople was contagious; on this point my observations have led me to negative results. The disease declared itself in the Holy City, notwithstanding the rigorous quarantine imposed since a long time upon all ships coming from the Black Sea; and the Turkish physicians warmly recognised this truth, and caused the quarantine to cease as soon as the first cases made their

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penance at Constantinople. The population of the city was so little alarmed that none of the usual hygienic precautions were adopted. In spite of the easy and continual communications between the soldiers and the inhabitants, no one case favourable to the doctrine of contagion was observed; I may add, that all that I saw was opposed to that doctrine. The soldiers who had remained in harbour since Dec. 1, and who communicated freely with their comrades and with the inhabitants, were attacked only on Dec. 18.

A fact which occurred under my own observation proves better than anything that can be said how singular is the progress of accidental epidemics. The ships of the Turkish fleet were anchored in the harbour in two parallel lines—ships and frigates to the north east, sloops and brigs to the south-west—at very short distances from each other. The former suffered considerably, and, by an unaccountable singularity, frequent, however, in epidemics, the foremost and the last vessels were at first the only ships affected, although all the crews were in daily communicat on. Another ship, during fifteen days, had not a single patient on board, and its crew, at a later period, suffered very slightly. During my residence I did not find a single proof in favour of contagion, and the distinguished physicians of the army and navy assured me they had not been more successful. . . .

Notwithstanding results of so positive a nature, all nations in commerce with Turkey oblige to a rigorous quarantine of twelve days, at least, all vessels coming from Constantinople. On my return, all the ports of Greece, Italy, Malta, Sicily, were so panic-struck, that any vessel on board of which a single patient had died was refused admittance. The English Government gave at Malta an odious example of severity in this respect. The Mentor, a French steamer, was not admitted into harbour because it was reported that one of her officers had been attacked with cholera. Moreover, the Board of Health enforced a quarantine of fifteen days upon another vessel, the Pericles, on board of which a sailor had been attacked during the passage with confluent smallpox. It would be a never-ending task to state all the vexatious measures enforced at Malta upon vessels coming from Constantinople; but it is important to point out to the medical world the contradictions existing between the words and the deeds of Great Britain, who boasts of being the reformer of quarantine abuses, and, nevertheless, continues to act as in the worst days of the worst quarantines. But why recriminate against foreign countries, when a French city, Marseilles, adheres to a system dictated by fear, and enforces upon our ships a quarantine of twelve days?

Treatment.—When speaking of the causes of cholera, I mentioned the prophylactic measures which might arrest the development of the disease, or attenuate its consequences; I have nothing to add. With regard to the treatment, I think it my duty to insist upon some peculiarities.

The first indication to be met consists in the cure of all incidental disorders, even the more trifling, especially when they occupy the intestines. Subjects affected with diarrhœa, dysentery, and chronic affections of the stomach, should neglect no measures to get rid of these maladies. The subnitrate of bismuth in large doses, opium, diascordium, &c., were in constant use, and of signal service; astringent drinks assisted their action; and in robust patients the applications of leeches upon the abdomen and to the seat were measures not to be neglected.

Asiatic cholera was often successively treated by agents capable of communicating to the body a considerable amount of heat; frictions, and particularly warm baths containing mustard-meal in large quantities, were often sufficient to dispel cyanosis and algor. It was then, the reaction being established, that venesection could be resorted to with the greatest benefit; but it was still necessary to keep up the reaction by frictions and artificial heat. The physicians of the country often had recourse to venesection; and I must say that when performed upon robust subjects in an advanced state of cyanosis, the pulse preserving some degree of strength, phlebotomy was useful in bringing on reaction more speedily. When performed under opposite circumstances, that practice appeared to me injurious and even fatal. These differences are deserving of interest, because they are characteristic of the cholera which I describe.

Another and not less important peculiarity was the happy influence exercised upon the abdominal symptoms by repeated applications of leeches upon the epigastric and umbilical regions. The pain so common in these parts yielded readily to local depletion. I did not see any cupping-glasses employed, but they appear to me preferable to leeches; demulcent fomentations, and starch enemata containing laudanum, were the complementary part of the treatment of the abdominal symptoms. The success of this method cannot leave any doubt as to the existence of a morbid condition of the digestive organs; but I would not think myself justified in asserting that condition to be inflammatory.

The patients continually called for cold drinks, and instinctively rejected aromatic, stimulant, and warm liquids. The former were much better borne by the stomach, and soon came into general use. Gum, lemonade, &c., were taken with advantage; as to ice, it was so difficult to be obtained that I did not see it used.

When the cholera was replaced by an adynamic state, bark, camphor, acetate of ammonia, spirit of ether, &c., and analogous medicines, were put in requisition. Blisters upon the lower extremities and upon the nape produced excellent results, even before cyanosis and algor had ceased.

Such are my researches upon the cholera of Constantinople. Eastern prejudice is so powerful in that city that no *post-mortem* examinations could be allowed, hence a great desideratum in this paper. When I left, on January 7, the epidemic had, in a great measure, abated; no cases had been noticed in the neighbouring cities, but the disease was said to have appeared in the Diarbekir, and to be receding towards its original cradle. It is highly probable that, if cholera invaded France, it would adopt the mild form which I have endeavoured in this memoir to describe.

D. M'Carthy, D.M.P.

Treatment of Verruœ.—Mr. Pearson says, in the *Provincial Journal*, the hard warts may be destroyed by inflammation, decomposed by caustic, or extirpated by the knife. It is difficult to excite a sufficient inflammation to destroy warts, without injuring the surrounding parts. It is best first to soften them by a poultice, containing soda, after which the top is to be pared off, and a mineral acid applied, till the whole is destroyed. Where a ligature can be used it is a still better remedy, as the wart is then less liable to return. It is always applicable to the pencil kind. It appears that the part of the wart below the ligature dies as well as that above it. If the prepuce be studded with warts, it is better to remove it; and, if there be masses of them on the penis, a small portion only should be destroyed at a time, lest the inflammation produce gangrene. Condylomata frequently shrink and disappear during the mercurial course, without any local application; if they should remain, a solution of the bi-chloride of mercury, or of mercury in dilute nitric acid, may be used. Cristæ are to be reckoned amongst the most inveterate venereal excrescences. They will be regenerated again and again. The most useful applications are the following:—A solution of the bi-chloride of mercury, the hydrochlorate of ammonia, powder of savin, acetate of copper, sesqui-chloridi of antimony (butter of antimony), arsenic, and fumigations, with the bi-sulphuret of mercury. Those caustics which produce most inflammation are the best. Should a crista, after having been destroyed by caustic, sprout up again, great benefit will be derived by a strong solution of alum in a decoction of oak bark. The following is recommended by Plenck:—℞. Alcohol, aceti destillati, utrq., oz. jss.; hydrargyri bi-chloridi, dr. j.; aluminis sulphatis, camphoræ, utrq., dr. ss. Misce. fiat lotio. Whenever a ligature can be used in cases of cristæ it ought to be applied. A needle with a double ligature will be found the most effectual method of applying it. If it be thought fit to excise these excrescences, the excisions must be deep in order that the sebaceous glands, from which they probably spring, may be extirpated with them.

Abnormal Condition of the Urinary Apparatus.—Dr. Hargrave, of Dublin, exhibited the parts taken from a subject which had been obtained for practising lithotomy, and which displayed a curious malformation of the kidneys, ureters, and bladder. On incising the integuments of the perineum, he cut into a sinus or pouch, from which urine issued. This led him to examine the abdomen. The left kidney was found enlarged and its ureter immensely dilated and sacculated. On following the dissection into the pelvis no bladder could be discovered. The vesiculæ seminales were in their usual situation. The portion of the ureter, which from its sacculated dilatation represented the bladder, was lined with muscular fibre. The right kidney was scrofulous, and its ureter impervious.

Ointment in Scald Head.—Norway pitch, thirty parts; turpeth mineral, fifteen parts; red oxide of mercury, fifteen parts; lard, 100 parts; mix, and apply every night and morning.

Removal of Stains of Iodine from the Skin.—The stains of iodine may be removed from the skin by washing for a few minutes in milk. The stains must be recent, otherwise the milk has no action on them.

On the Reduction of a Dislocation at the Hip.—Mr. South, in his edition of "Chelius," remarks that Morgan and Cock, of Guy's Hospital, have reduced several dislocations of the hip-joint by placing the foot between the thighs, so that it presses against the upper part of the dislocated bone, and thrusts it away from the pelvis, extension and rotation of the limb being at the same time made by assistants. The principle of the operation is precisely similar to that in reducing a dislocated shoulder by putting the heel in the armpit. This practice was first introduced about ten years since by Morgan, and by it he has replaced a dislocation upon the pubes, one on the oval hole, and one upon the back of the hip-bone, without difficulty, which he principally attributes to diverting the patient's attention from the operator's efforts by unexpectedly pricking or pinching. Cock has reduced one dislocation on the pubes, and two on the back of the hip-bone, by the foot between the thighs; the greater number of the persons so treated were weak or elderly. It is not known that the practice has been elsewhere adopted, but it saves all the trouble and inconvenience of pelvis-straps and pulleys.

Dreaming and its Relation to Diseases.—Dreaming, says Baron Ernst Von Feuchtersleben, quoted in "The Journal of Psychological Medicine," as the precursor and accompaniment of diseases, deserves continued investigation, not because it is to be considered as a spiritual divination, but because, as the unconscious language of the cœnæsthesis and of the sensorium commune, it often very clearly shows to those who can comprehend its meaning the state of the patient, though he himself is not aware of this; and the interpretation of dreams deserves the attention and study of the physician. Albers sets forth the following signs as the most approved:—Lively dreams are in general a sign of the excitement of nervous action. Soft dreams, of slight irritation of the brain, often, in nervous fever, announcing the approach of a favourable crisis. Frightful dreams are a sign of determination of blood to the head. Dreams about fire are, in women, signs of an impending hemorrhage. Dreams about blood and red objects are signs of inflammatory conditions. Dreams about rain and water are often signs of diseased mucous membranes and dropsy. Dreams of disturbed forms are frequently significant of abdominal obstructions and disorders of the liver. Dreams in

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which the patient sees any part of the body especially suffering indicate disease of that part. Dreams about death often precede apoplexy, which is connected with determination of blood to the head. The nightmare, with great sensitiveness, is a sign of determination of blood to the chest. Dreams of dogs, after the bite of a mad dog, often precede the appearance of hydrophobia, but may only be the consequence of excited imagination.

Geography of Psychopathies.—Von Feuchtersleben remarks that, except perhaps Turkey and Egypt, insanity is more rare in other parts of the globe than Europe; but, according to Brigham, it is more frequent in civilized America than in Europe; among savages it is almost as rare as among children. In Russia it is very frequent, particularly in the form of mania; whereas the Finlanders are more subject to idiocy. In France it increased very much after the revolution, but since 1830 it has again decreased. In Great Britain, where originality has been carried even to eccentricity, the number of lunatics in 1828 amounted to 8000; in France, to 9000; in Holland, to a proportionably greater number; in Prussia the proportion is given as 1-668; in Norway, as 1-561. Italy gives a particularly favourable proportion. A difference is likewise to be observed in the occurrence of several forms. In the south, mania is most common; in the north, melancholy; in the valleys, idiocy, &c. In England, moral delusion predominates; in France, lunacy; in the east, idiocy; Germany presents a more happy medium.

THE MEDICAL TIMES.

SATURDAY, APRIL 15, 1848.

MEDICAL MEN AND MODERN SOCIETY.

"*The parish doctor*" and "*the pauper sick*" are words so increasingly heard, that they may be taken as part of the jarring, threatening cant of that social harmony called "civilization." Oft heard, and ever in the accents of content or respect, they are words of sad and significant import. Though touching the most spurned and ill-fated of God's creatures, they are not free from possible connection with the fate and fortunes of an empire. As all events, with whatever dislike or contempt they are heard by those who, in heedless prosperity, mistake themselves for "the world," to the eye of our science, as, indeed, to the ear of arrested thought and of conscience is all, they convey other and higher emotions. To us, the medical men of England, the sick poor—insignificant and worthless as (for the hour) they are to the material interests of busy life and civic enterprise—show as just a title to our studious interest as any other portion of the community. Our duties begin where society's would appear to end. Science, like religion, of which it is indeed so great a part, knows no distinction of persons. It takes small account of poverty, save to sooth, or of low birth, save to respect it. The two million wretches whom our poor-law annually brings us to heal, have, at least, as good claims on our aid as if, instead of owing their pauper nascence to some obscure bowmen in the time of the Edwards or the Henrys, had been born dukes, tracing questioned kinship to the excluded Stuarts or reigning Guelphs. All that we see in them is, that, men and brethren, they suffer with an organization common to them with the highest in the land. Our profession has no skill or science for the discrimination of ranks and classes. Titles and wealth lose their potency under the magic cry of pain, and are annulled, under the assumed empire of nature; for, in presence of disease, as of death, the doctor who in the pauper sees a man, in the peer can see no more.

Of all medicine's claims to public estimation from social usefulness, there are none in which we should take a more genuine complacency than in those founded on our services to the pauper sick. Our brethren in commissioned bondage—the rich man's scoff, the proud man's contumely—the poor-law doctors—are to us, in their functional relations at least, a boast and a triumph; and it is not the smallest of our pleasures that we have aided to initiate measures which in the future must secure for their benevolence a wider range and juster appreciation. Earnestly, however, as we claim from the Government a change in poor-law medicine on the score of justice to the doctor, we claim it a thousand times more earnestly out of the wider and more general considerations of pauper well-being and national safety. If it be the privilege and duty of the medical officers to set this great evil, on any account, right, it is not the less, but the more so, because they share in the suffering. If by *rank* they could submit to their part of the wrong, they cannot by duty. They owe something to their own love of justice, if not to the profession, of whose membership they share the advantages: and, at all events, it is a high public duty—in which no interestedness can mix—to see that the evil of their day be not entailed on their successors. But we repeat that this is the small portion of the matter. It is the distinction of this, as it is indeed of every medical agitation, that our boon will be but the least part of a large public benefit.

There can be no more calamitous thing to the poor than the unsuccessful influence of our Poor-law practices in breaking down the spirit, lowering the feelings, and corrupting the principles of medical practitioners. The protection for the pauper, as his only solace, is that his doctor be a gentleman, a true man of science. Kindness, sympathy, and confidence—to the sick pauper the most efficacious of all medicaments—can come from no other: a true man of science alone can stand between him and a misunderstood parsimony—for none other will risk guardian frowns, or worse, in exposing paupers' sickness its full needs and rights; and who else—with medicines worthless or expensive, attendance, rare or frequent, under his own unfettered discretion—will sacrifice time and means to secure to the unconsidered pauper the full plenitude of science's latest powers? Responsible to caprice, to personal pique, and to worse passions, the medical officer is wholly irresponsible for all that makes the value or uselessness of his appointment.

As the Chief Commissioner himself declared it is easy to dismiss or condemn *other* officers—but "*his* duties and qualifications are too many, of too delicate, undefined, and nice a nature, to be even investigated by a central authority. The diploma may guarantee skill, and gross neglect of duty may be easily detected; but skill and ability may be abundant, yet the medical officer may want zeal, kindness of manner, conciliation; and he must not only have these, but he must be reputed to possess them;" for, without the poor's confidence—as Mr. Buller too truly says—the practitioner exercises but half his profession, and opens more doors to death than he closes. In what way, then, does the law administered by the chief commissioner tend to conserve or educe, or augment the high qualities on which the well-being of the pauper sick is admitted to depend? Is an appointment held at the pleasure of the absolute pleasure of a small "close or vestry union" of underbred and ill-conditioned ratepayers—the sort of soil, wherein to grow naturally and without supervision these high qualities of delicate honour, gentleness, kindness, conciliation? In the miserable pittance of 2d., or 7d., or 13d. per case, for drugs averaging alone 4d. per case, the sort of appliance likely to stimulate and strengthen their development? Is there not in the two facts—more or less applying to almost every union in the kingdom—a state system established, calculated and tending (we will not add aiming) to demoralize what should be our desire to elevate, and degrade what should be our anxiety to exalt? There are certainly adverse circumstances which, as long continued, would be too much for the best of us. We will not gather grapes of thorns, nor figs of thistles. No chevalier sans peur et sans reproche has ever been eliminated out of an attorney's office or a Hebrew's shop; and poor-law practice, under the régime we are not the mechanism by which gentlemen are either made or destroyed. The conflict between the honourable independence of a medical duty is always a troublesome one, between ignorance clothed in authority, and practice sometimes ill supported by the man who responds to the life in poverty, has to look beyond the first impulses of feeling or conscience) to the liabilities of a home, and perhaps more that should, at all events, command respectable. Mr. Buller, then, and the Government, and through them to the public, we look for a change in their own interest. For the sake of the pauper sick should receive justice in policy, if not in feeling; for the sake of the large social interests which, with that justice, we demand, that poor-law medical officers may no longer be placed in a position where they are ever liable to be wrong to their own sense of duty, and compelled to be forgetful of their mission of mercy and to science.

Sooner or later this appeal must be heard—how soon we know not. In the meantime, our duties, justice and wrongful suffering and discouragement from a Government we serve and cannot help to save, there is one thing that, thank God, leaves us a treasure indeed—the consciousness that no day passes that we do not do some little good. From our unrequited labours and dishonoured skill do two millions of our fellow-citizens, each year, draw solace, or soothing, and health—their only wealth! If we thus do we raise; if we remain poor, we in some higher sense enrich; by a magic of mercy we are denied possessing nothing; making happy, though unblessed ourselves! How often do we see the parent shedding grateful tears for a loved child saved, and the child in happy unconsciousness of the fear of orphanship has gone; and the hand many a wayfarer, wounded and sick in body, mind, and estate, have we poured our oil and wine—giving unseen and unthanked, but not unfortunate and discouragements, that opportunity which, while on one side averting death, on the other turned life into a sweetness and a blessing!

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UNIVERSITY COLLEGE.

RESIGNATION OF PROFESSOR SAMUEL COOPER.

We understand that the celebrated author of "The Surgical Dictionary" has resigned his post as professor of surgery in University College. We regret to hear that it has been deemed necessary to take this step in consequence of dissatisfaction with the official proceedings of the college authorities.

POOR-LAW MEDICAL RELIEF.

(To the Editor of the Medical Times.)

Sir,—The debate upon Lord Ashley's resolutions was characterised throughout with a total want of acquaintance with the details and minutiæ of the subject discussed. I could hardly conceive it possible for so important a subject like poor-law medical relief to be brought before the House by any one, much less Lord Ashley, so ill informed, and with matter so crudely digested; and when I read the report of Mr. Charles Buller, I was perfectly horrified at its mistakes. Can Mr. C. Buller claim exemption from reproof from our profession by asserting as a plea the shortness of time he has held office? Will the assurance which he has given, that the subject has been a matter of serious and anxious attention since he became the head of the Poor-law Board, suffice for us, or be sufficient for the poor? He knows, as well as I do, that the board have been deluged with complaints by the workers of the profession. He knows that the poor are and must be neglected if no remedy is found to compel boards of guardians to contract honestly with us; and he knows well that the present system is unjust and impolitic in its every action. Will he calmly sit down with the comfortable idea that the £30,000 voted by Parliament to defray parish surgeons' and schoolmasters and mistresses, is an opiate sufficient to compose us during the remainder of the session? The sum voted by Parliament never was intended to give us an increase of salary; it was one of the boluses held out by Sir R. Peel to quiet the agriculturists when he removed the protection from corn.

To illustrate the perfect unacquaintance with the subject on which Mr. Buller addressed the House he stated that at Nottingham and Wootton Basset (I believe) the surgeons received £120 and board and lodging for their services, and that the drugs were dispensed at the cost of the union. I happen to know the localities spoken of in Nottingham there is, indeed, the magnificent sum of £120 per annum; but, alas! no board and lodging. Let Mr. Buller look at the returns of sickness in the large town; let him trace the medical officer through his daily routine of arduous duty into the lazaretto, the vagrant ward, the sinks of iniquity, pest, and filth; let him, I say, inquire into the duties done for that £120, and then let him get up before Parliament and the world and assert that the salary is commensurate with the services. In the other union mentioned the surgeon has to provide a horse and drugs for an equally low remuneration.

There may be some union in which adequate remuneration exists; and surely the task of settling the medical relief of the poor cannot be so great if these be taken for a guide. Poor-law surgeons have never insisted upon a high recompense for their services, but they do clamour for an equalization; they ask that the difference between 1s. and 7s. for attendance upon paupers in different districts may be remedied; they ask for a fair price for their labour, skill, and medicines. What is easier than a correction of the abuse?—Nothing.

I have spoken long enough upon ourselves, and the remuneration we should receive. I am going now to advocate the cause of the poor, over whom we have our especial care and whose woes and miseries cannot be known except through our instrumentality or a coroner's jury. The agitation of the subject of poor-law medical relief has, as yet, produced no good result to us, but it has produced an incalculable deal of mischief to the sick poor; and I shall detail a case of two which will forcibly illustrate the point in question.

A fair test can be made out against almost every board of guardians in the kingdom; and they, should they persist in maintaining the pressure upon us, must necessarily have to close our ears to the cries of the poor, and hence they resolve to withdraw medical attendance from the poor in every possible way. They do so. The Cranbrook union factitious fever broke out, and I am grieved to tell a tale or two which have come under my own eye. I may premise that my student generally have diminished about sixty-five per cent.

A poor woman applied for an order for her child with fever, the husband having just recovered from it, and was being at work in the workhouse. Fearing accidentally to be infected, I was summoned to see it; I found it in a dying state, the child insensible, the lips parched, the tongue brown and dry. I made them get the order, and procured every requisite; the child died before I could visit it again.

A woman in labour, who had been removed to another parish, was refused an order for my attendance; but I went, and, after a difficult and dangerous case, she was delivered of twins. I, of course, charged the parish for it as an extra. My doing so had this effect, to prevent other women pregnant from applying for my assistance. The husband was taken before a magistrate for becoming (unavoidably) chargeable again to the parish from which he had been removed; he was sent to prison for a month with hard labour; the woman and five children were thrown into the workhouse, after having been nearly starved to death. The only relief the woman received besides my attendance was somewhat under 5s. All this was done to keep down the extras; and from the dread which it inspired in the neighbourhood (for women do not like to have their spouses incarcerated for a natural proof of their love), I have not had a midwifery case there since. See the contrast and the injustice, however, of my next case. A young woman, pregnant with a bastard child, is removed to her own parish, but returns before the overseer gets back; he meets her, and says if she becomes chargeable for her confinement he will send her to prison. The threat is of avail; the pains and perils were severe, and my assistance is not sought. A lingering illness follows, the month expires, and then comes an order for me to attend the young woman, not as an extra. Her breast had inflamed; an unrelieved torture is experienced for many days; matter forms, fistulous openings remain everywhere, and the exudation of matter continuously has wasted her frame to a shadow of its former self. My attendance has to be given for a long time; quinine, bark, iron, yards of adhesive plaster, are used; yet, because it costs the parish no more, no mention is made of sending her to prison.

Does Mr. Buller know anything of the mode of the present dispensation of medical relief, or how these extras are made the stalking-horse for local boards to screen themselves from the charge of giving indifferent salaries?

The last case I lay before your notice is that of a child, whom the father applied for an order a fortnight before he procured it; he came down in deep distress, saying his child had been convulsed for a fortnight, and was dying; and die it did for want of earlier medical aid.

Thus you see the lash has been removed from our shoulders to those of the poor, on whom it must press with tenfold severity. I have no hesitation in stating my conviction that the Poor-law Board do not take a sufficiently enlarged view of this important question; they never inquire into the numbers of sick paupers, the cause of the present diminution of cases, the extent of districts, population, &c. They blindly let the system go on with all its glaring deformities; there is no one to speak for the poor; could they be examined, how many a tale of horror would be unfolded! I have raised my voice on their behalf, and perhaps some others may step forward in behalf of their fellow-creatures, to warn Government that there are yet latent abuses in the poor-law which will undermine its foundation if not speedily removed. The poor are starved almost to death by the parsimonious relief afforded by relieving officers; they are oppressed in sickness, they are debarred from good and efficient services, because the remuneration given will not ensure them. We have too many illiterate masters, as the subjoined will show:—

"Sir I wish you to com over to ——— directley to John Cook you must Beh shure to come to Night." (Six miles after eleven o'clock.)

It behoves the Board thoroughly to investigate every subject connected with the duties of medical officers and medical relief, and place us and it on a respectable footing.

I remain, with every respect, your obedient servant,

A MEDICAL OFFICER.

A REQUEST FOR INFORMATION ON THE ADMINISTRATION OF CHLOROFORM, &c.

(To the Editor of the Medical Times.)

Sir,—In a Report on Anæsthetic Agents, intended shortly for publication, I wish to include reports embracing the following bearings of the subjects:—

1. The number of cases in which ether and chloroform have been exhibited. 2. The quantity of each agent, respectively which has been inhaled at one time, in some particular instances, and in others on an average. 3. The length of time in some particular cases, and in others on an average, during which a state of anæsthesia has been maintained. 4. If possible, the various diseases in which their admissibility has been tested.

This subject is of great professional importance, and the reports of but one or two will swell the aggregate, and receive attention. Any gentleman thus favouring me will greatly oblige

I am, Sir, very respectfully yours,

T. CATTELL, M.D.

Braunston, Northamptonshire, April 7.

GOSSIP OF THE WEEK.

ROYAL COLLEGE OF SURGEONS.—The following members of the college, having undergone the necessary examinations, were admitted "Fellows" of this institution at the meeting of the council on the 12th inst., viz.:—Messrs. Isaac Baker Brown, Oxford-square; Charles Timins, Hon. East India Company's Service, Madras Establishment; and William Grant Carpenter, West-street, Finsbury-circus.

APOTHECARIES' HALL.—Gentlemen admitted on Thursday, April 6:—Samuel Tryleton Gwynn, Wem, Shropshire; Thomas Beavan, Hatton; Shaftesbury; John William Harper, Hitchin, Suffolk; Joseph Lawrence, Bath; Joseph Hinton, Bristol; William Rowland Raby, Birkenhead, Chester; Samuel William Aldred, Great Yarmouth; Hartley Samuel Leigh, Liverpool; Thomas Armstrong, Brecon, South Wales; William Benham, Great Coram-street.

UNIVERSITY REFORM.—It is understood that a memorial, already extensively signed by names of weight in both universities, and still in course of signature, will shortly be presented to Lord John Russell, praying the Crown to issue a commission for inquiry into the state and management of the Universities of Oxford and Cambridge.

ASYLUM FOR IDIOTS.—The first anniversary festival of this most valuable charity took place on the 30th ult., at the London Tavern, and although not numerously, was very respectably attended. Lord Robert Grosvenor, in the absence of the Duke of Cambridge, filled the chair. He was supported by Sir G. Carroll, Sir James Clark, Mr. G. Thompson, M.P., Dr. Forbes, Dr. Conolly, Mr. S. Amory, Mr. T. Callaway, Dr. Little, Dr. Carlile, Dr. Hitchman, and other gentlemen. After the usual loyal toasts had been proposed, responded, and duly responded to, his lordship gave "Prosperity to the Idiot Asylum;" and, in doing so, dwelt in most appropriate terms upon the claims of the institution to public support. Dr. Conolly, in returning thanks for a toast proposed, gave an interesting account of the experiments which had been successfully made abroad in the training of idiots. These appeals to the sympathy of the company seemed not to have been without effect, for during the evening subscriptions to the amount of £800 were announced—a large sum, considering that the charity is still in the first stage of infancy. The gentlemen entrusted with the management of the charity have taken Park-house, Highgate-hill, as a temporary asylum, but the number of applicants has already far exceeded the extent of accommodation at their command. They have not had less than seventy applications for admission on the ground of destitution, and, in addition to these, from thirty to forty cases have been presented where the patients are to pay for those benefits which the institution has been established to supply. From the regulations announced by the committee of management, it appears that a preference will be shown to those cases where the chances of improvement by educational means are greatest; and that the object of instructing these poor unfortunates the benevolence will be kept steadily in view.

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CHLOROFORM EMPLOYED AT CONSTANTINOPLE.—The *Courrier de Constantinople* of March 4 mentions the successful employment of chloroform by Dr. Glascott, who, with the assistance of Dr. Collier, amputated a Bulgarian's arm at Eyoub, completing the operation in nine seconds. Dr. Glascott was the first who applied the ether in surgical operations in that country. The Sultan has ordered a quarter-cask of chloroform for the use of the ladies of his harem ! !

INHALATION OF MEDICINAL VAPOURS.—M. Poggiale, professor of chemistry at the Military Hospital, Val de Grâce, states that inhalation of the vapour of aldehyde produces insensibility in a more prompt and complete manner than ether or chloroform. Several dogs have been rendered completely unconscious in the space of forty-five seconds; no accidents occurred. On two occasions the inhalation was continued during ten minutes, and the animals spontaneously recovered.

DEATH OF DR. STEPHENS, OF BALLYSHANNON.—We stop the press to announce the death of our young and respected townsman, Dr. Stephens, of fever, this morning at an early hour, in his thirtieth year; and we have but time to give the melancholy intelligence—on no former occasion was it our duty to record the death of one more universally regretted. Whilst his amiable disposition, and his talents in his profession, obtained for him the confidence and esteem of the gentry of this country, his attention to the charitable institutions of the town, and at the Kinlough Dispensary, of which he was the medical superintendent, will cause his memory to be long regarded by the poor, to whose wants he so frequently administered. — *Ballyshannon Herald.*

MUNIFICENT GIFT TO THE MIDDLESEX HOSPITAL.—The Rev. Deacon Morrell has afforded liberal and well-timed aid to the funds of this useful charity by a donation of £500.

OBITUARY.—On March 31, at 56, Northumberland-street, Edinburgh, Archibald Makellar, Esq., M.D., late of Saltoun.—On the 8th inst., John Welbank, Esq., M.R.C.S., aged 84.—On the 2nd inst., at Glasgow, Mr. William Easton, surgeon.—On the 6th inst., at Salisbury, Henry Coates, Esq., in the 70th year of his age, forty-three years surgeon to the Salisbury Infirmary.

MORTALITY TABLE.

For the Week ending Saturday, April 8, 1848.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1008	1107
SPECIFIED CAUSES...	983	1102
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	239	184
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	43	59
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	106	138
Diseases of the Lungs, and of the other Organs of Respiration	176	225
Diseases of the Heart and Blood-vessels.....	26	39
Diseases of the Stomach, Liver, and other organs of Digestion	53	62
Diseases of the Kidneys, &c.	14	9
Childbirth, Diseases of the Uterus, &c.	7	13
Rheumatism, Diseases of the Bones, Joints, &c. ...	8	8
Diseases of the Skin, Cellular Tissue, &c.	2	1
Old Age.....	34	79
Violence, Privation, Cold, and Intemperance.....	28	31

NOTICE.

THE CHART.

We may notice, while announcing the completion of the delivery of the Analytical Chart by post, that the numerous requests we have received with reference to private modes of transmission have been observed. We will endeavour to oblige our correspondents whose requests have this week reached us by extending to the present month the period within which subscriptions securing the receipt of the Chart may be paid.

SUBSCRIBERS IN ARREAR are respectfully requested, in conformity with the terms of their subscriptions, at once to forward their remittances to the OFFICE.

☞ The subscription for the stamped edition of the *Medical Times* is 15s. for the half-year, and £1. 5s. for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfrae.

TO CORRESPONDENTS.

"A Surgeon engaged in Practice."—The case should be made known to the Apothecaries' Company without delay. We see no difficulties which may not be overcome. The certificate is necessary, to be safe.

"Adolphus."—1. The institution is a private speculation, but, we believe, efficiently conducted. 2. The examination tests the candidates' knowledge of the grammatical construction of the Latin language.

"Publius."—We coincide with most of the views which the pamphlet contains.

"Simon Pure," "On Free-Hospital Quackery," is under consideration.

"Dr. Phillipson" has been deceived by a false statement. If he should wish it, the letter shall be published.

"Civis."—We believe that most of the dentists connected with the London hospitals are members of the College of Surgeons.

"An Old Sailor" writes us, in reference to the duties of a surgeon on board an emigrant vessel—"Though some stir has been made concerning the necessity of having a properly qualified medical officer on board ships carrying a large number of passengers, the owners are still very careless on this point, and the salaries they offer are truly degrading. A young surgeon must not expect to be unemployed even if he should have no fever cases on board his ship. Many of the passengers and crew are oftentimes affected with a loathsome disease, and there are casualties occurring almost daily which call into exercise the skill and patience of a medical officer. I would advise all those of my professional brethren who aspire to the honours of surgeons of merchant vessels to insist upon a fair remuneration for their services. Salaries have been kept down because druggists' assistants are readily found who have impudence enough to undertake medical duties, and ignorance enough to mistake bubo for hernia, and dislocations for sprains."

"F. R. S." "On the State and Wants of the Medical Profession," has not sufficiently considered the subject. We decline inserting the paper.

"A General Practitioner, Oxford," remarks, "Blisters are oftentimes rather difficult to manage. I have always found that a little sweet oil rubbed on the surface of a blister has ensured its rising, while it prevents any irritation on the urinary organs."

"Medicus."—There is no penalty for selling poisons. The practice is common, and ought to be controlled.

"G. B."—Hydrocyanic acid is not met with in the substance mentioned. The process must have been conducted unscientifically.

"Mr. Kemp" should apply to the secretary of the National Vaccine Establishment.

"Omega."—The delay was unavoidable. It will in all probability be remedied next week.

"Mr. Joseph Henderson" has omitted to give his address in the letter sent to our office. We shall feel obliged by his forwarding it to us at an early opportunity.

"Rusticus."—The request cannot be complied with.

"A Dublin Medical Student."—The reports have not been received.

"Q."—36° Cent. = 96°·8 Fahr.

"A Licentiate."—The great barrier is the Act of 1815. Many druggists now, however, assume the functions of the general practitioner, though they are liable to punishment.

"M. M."—The practice recommended is large bleedings, and delivery as quickly as possible.

"Alexis."—Examinations for the fellowship are held three times a year, at such periods as the council of the college may determine.

"Pater."—Inquiry shall be made.

"An Old Friend.—Not more than £300 could be demanded.

"Snipe."—The remarks are sensible and practical. Another communication would be acceptable.

"Cantab."—There are many similar societies in operation, but the salaries for medical attendance in cases of sickness is so low as not to be remunerative.

"T. B., Wolverhampton."—No correct opinion can be formed on the nature of the disease, as no *post-mortem* examination was instituted.

"Spectator."—1. No. 2. The facts are not clearly stated.

"Inquirer."—The lectures will be received both by the College and the Hall.

"Aliquis."—There are many cases on record in which the same phenomena have occurred.

"Chirurgus."—The remedy may be very good, but the cases in which it has been tried are not sufficiently numerous to entitle it to confidence.

"Bo-peep," who has sent us six questions in reference to Dr. Robt. Lee and his discoveries, should transmit them to the doctor himself.

"Philo-veritas."—The plan recommended is ingenious. It would be useless to publish it.

"Scalpel."—It is not unusual for such statements to be made in order to mislead the public and the profession.

"Lector."—Hippuric acid is found in the urine of all herbivorous animals.

"An Eyewitness."—The statement could not be made public without being authenticated.

"Delta."—The master of the society must be addressed.

"A. M., Edinburgh."—There are several good works on the subject mentioned.

"Carolus."—The diploma of the College of Surgeons would be sufficient.

"Mr. Carter" will receive a private communication.

"A Medical Witness."—The coroner has no power to make the order to which our correspondent refers.

"Justitia."—If the assistant is a qualified practitioner, he ought to have been summoned, and would have been entitled to the usual fee.

"A. B. C."—1 Not under present circumstances. 2. No.

"A Subscriber and Contributor."—A communication is left at the office.

"A Suburban Practitioner."—The amount of the bill can be recovered in the County Court.

"Anthropos."—The Poor-law Commissioners should be memorialized.

"Mr. Wm. Sandford."—The College has no power to prosecute.

"Half-pay."—Communication received.

"Horatio, Glasgow."—"Boxing," we imagine, is not a very good remedy for weak legs.

"Dr. Thos. R. Torbock, Liverpool."—Communication received.

"An Annual Subscriber."—The communication, with the enclosure, shall be acknowledged some time ago, we cannot promise to insert it at present.

"A Constant Subscriber, 203, Tottenham-court-road," writes us:—"Will you allow me, through your columns, to ask the editor of 'The Dublin Examiner on Anatomy and Surgery' whether that work is discontinued for the time or for ever? If the latter, he is not honest in so deceiving his subscribers by beginning a work he had no intention of completing."

"Dr. James Paxton, Rugby."—Communication received.

"Lex Medica" asks our opinion on the following cases:—"No. 1. A lady is delivered of twins, according to calculation, about seven months after conception; they, with care and attention, continue to thrive; the mother, for some seven or eight months after birth, consigns one child to the care of a nurse at night until five A.M., when the other is placed with her, and the mother takes the nurse's child; one of the twins is taken to bed as usual by the nurse, and at five P.M. the mother comes to change the children, finds it dead by the nurse's side; a medical man is sent for, who, of course, finds it dead also; an inquest is held, but no medical evidence is required; the verdict, 'Died from natural causes;' the child was in perfect health the night before. No. 2. A child, two years and a half old, who had previously been in good health, is taken ill with convulsions; a medical man is sent for, who administers certain remedies; four days after the child having perfectly recovered from the former malady the medical man is sent for, and finds the child dead, without the slightest evidence of convulsions; an inquest is held, and a verdict returned, 'Died from natural causes,' without either medical evidence or a post-mortem examination. Could a just and correct cause of death in either case be arrived at without medical evidence? They both happened on the same day, and the coroner was an attorney." The coroners were certainly to be blamed for not having required medical evidence in each case. Many criminals escape from the imposture way in which coroners' inquests are conducted.

"W. W. S."—We cannot give the information sought.

"Nervosa, London."—We decline recommending.

"A Subscriber."—Yes.

Letters and Communications have also been received from A Surgeon engaged in Practice; Adolphus; Publius; Simon Pure; Dr. Phillipson; Civis; An Old Sailor; F. R. S.; A General Practitioner, Oxford; Medicus; G. B.; Mr. Kemp; Omega; Mr. Joseph Henderson; Rusticus; A Dublin Medical Student; Q.; A Licentiate; M. M.; Alexis; Pater; An Old Friend; Snipe; Cantab.; T. B.; Spectator; Inquirer; Aliquis; Chirurgus; Bo-peep; Philo-veritas; Scalpel; Lector; An Eyewitness; Delta; A. M., Edinburgh; Carolus; Mr. Carter; A Medical Witness; Justitia; A. B. C.; A Subscriber and Contributor; A Suburban Practitioner; Anthropos; Mr. Wm. Sandford; Half-pay; Horatio, Glasgow; Dr. Thos. R. Torbock, Liverpool; An Annual Subscriber; A Constant Subscriber, 203, Tottenham-court-road; Mr. James Paxton, Rugby; Lex Medica; W. W. S.; Nervosa, London; A Subscriber; Mr. Flewett, Birmingham; Mr. Campbell, Inverness; Dr. Stokes, Cahir; Mr. Fothergill, Darlington; Dr. Coppinger, Cove of Cork; Dr. Peyton, Roscommon; Mr. Rouse, Amluck; Dr. Doyle, Coroffin; Mr. Simpson, Driffield; Mr. Hodson, Egremont; Mr. Martin, Highworth; Mr. Farrar, Halifax Infirmary; Mr. Steed, Southampton; Mr. Little, Devonport; Mr. Dixon, Doncaster; Mr. Davy, Chumleigh; Mr. Linton, Cundle; Dr. Probart, Bury; Dr. Terrewest, Messingham; Mr. Thompson, Newark; Mr. Hadwen, Lincoln, &c. &c.

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No. 447. SUMMARY. April 22.

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ORIGINAL LECTURES.

LECTURES ON SOME OF THE MORE IMPORTANT POINTS IN SURGERY.

By G. J. GUTHRIE, Esq., F.R.S.,
Read by Mr. HANCOCK, Surgeon to the Charing-cross Hospital, and Lecturer on Anatomy and Physiology at the Royal Westminster Ophthalmic Hospital.

Lecture XI.

ON WOUNDS AND INJURIES OF THE CHEST.

Appearances after death, in gunshot wounds of the chest, when not followed by empyema; Mr. Franklin's case; Mr. Hesse's cases; Mr. Bruce's cases; case of Mr. Drummond; Dr. Moore's case of gunshot wound of the lung, the ball remaining in the viscus during many years; Dr. Houston's case; cases by Dr. Stokes, Mr. Keate, Sir E. Home, and Mr. Guthrie; removal of splinters of bone, or other foreign bodies, from the wounded lung; probing with sharp-pointed instruments to be avoided; expectoration of buttons, wadding, pieces of cloth, and bone; M. Guerin's case of musket-shot wound, in which a large incision was made for the extraction of foreign bodies; Mr. Guthrie's cases; fatal consequences of foreign bodies lying loose in the cavity of the pleura; Dismarbrook's case; Mr. Guthrie's cases of gunshot wounds of the chest, the ball lying loose on the diaphragm; case of Major-General Sir Robert Crawford; Mr. Key's case; Baron Larrey's cases; Mr. Collier's case.

The following fatal cases show the appearances presented after death, when not accompanied during life by a formation of matter of any standing, terminating in empyema.

Case 109.—A French soldier, shot through the right side of the chest at the siege of Badajoz, had been brought down the Tagus from Abrantes to the hospital at Lisbon, when under my direction, and died in the December of 1812, apparently of consecutive phthisis. The ball had gone through the chest from before directly backwards; the posterior wound was closed; the anterior one was fistulous, and discharged a small quantity of matter, of which he spat up daily a large quantity until he died. The lung was diseased throughout, and contained several vomicæ or small abscesses, from which the matter expectorated was secreted. The track of the ball was nearly filled up, although the part immediately around was harder than usual. The lung adhered in many places to the wall of the chest, which was much flattened.

In other cases I have found portions of wadding, of leather belts, of splinters of different lengths, pieces of buttons, and even balls.

Case 109.—Private John Read, 61st Rigiment, was wounded at Toulouse, on the 10th of April, by a musket-ball, which entered the chest immediately under the left clavicle, at its articulation with the sternum, and lodged. He went on remarkably well, without a single unpleasant symptom, to this morning, May 2, when he was seized with a rigor, succeeded by heat of skin, quick pulse, terminating in profuse perspiration. The evening found him tolerably well; perfectly cool; his bowels regular.

May 3. About the same hour as yesterday, was attacked with rigor, lasting for nearly half an hour, followed by heat and perspiration; complains of nothing particular in the wound, on careful examination of which, I found and removed some small pieces of bone; at six o'clock the same evening, he was attacked with violent pain in the breast, confined to no particular spot, and attended with extreme difficulty of breathing; took sixteen ounces of blood from the arm; covered the chest with a blister, and gave an antimonial diaphoretic.

4. Pain of the breast moved to the back, nearly as far down as the lowermost rib, and extremely distressing; tongue white; skin hot; pulse 90, small. Rep. venesectio; took only ten ounces, as the blood yesterday evening showed no appearance of a buffy coat. Calomel gr. ij., pulv. antimon. gr. ij., opii gr. ½, every second hour; dilute with cold tea and lemonade. He died early next morning.

On examination after death, I found the ball had fractured the second rib, and had lodged deeply in the substance of the lung, the soft and gangrenous state of which did not allow me to trace its course. The cavity of the pleura contained above a pint of fetid purulent matter. An extensive abscess had also formed in the opposite lung.

H. Franklin, Asst.-Surgeon, 27th Regt., now Inspector-General in India.

Case 110.—A French soldier was wounded by a musket-ball at the battle of Waterloo, which penetrated the chest, fracturing the second rib, passing through the lung, and went out behind in nearly a straight line, close to the spine. Left on the field of battle for five days, before he was brought to Brussels; he was nearly dead, with difficulty of breathing, and other symptoms of inflammation, from which he recovered in the course of the next ten days, under repeated bleedings and the strictest antiphlogistic regimen. At the end of this time, and when apparently doing well, an accession of inflammation and of all his bad symptoms took place, destroying him at the end of four weeks from the receipt of the injury. On dissection, the lung was found adherent to the chest by false membranes of some thickness, with a quantity of purulent fluid in the cavity. The track of the ball was in a suppurating state, and two pieces of rib were found in the centre of its course. The whole of the lung appeared to be filled with a sero-purulent fluid, which could be squeezed out from it.

Case 111.—A French soldier was wounded at Waterloo by a musket-ball, which broke the second rib of the left side, and came out close to the spine behind. He spat up a considerable quantity of blood, and remained four days on the field of battle. Relieved after his admission into hospital at Brussels by repeated bleedings, he appeared to be likely to have a fair chance for recovery, when, another serious attack of inflammation supervening, he died. Being present at the moment, I had the body opened, and found that the ball had gone through the upper part of the left lobe of the lung, which adhered both in front and behind to the wall of the chest; the track was well marked, and in a sloughy state, the rest of the lung being full of a purulent secretion, with some very tinted serous fluid in the cavity, which bore general marks of having suffered from inflammation.

Case 112.—Private John Roth, of the 5th battalion of 60th Regt., aged 29, had been wounded by two balls, one on the 10th of April, 1814, at the battle of Toulouse, which grazed the left temporal bone; the other had gone through the upper part of the right chest, in the Pyrenees, the autumn before. Both had healed. He was seized on the 8th of May, after a little intemperance, with pains in his body and joints, pain in the chest, and cough, with bloody expectoration; skin hot; tongue foul; bowels confined. On the 9th he was bled, and purged by calomel and antimony and salts. On the 10th, symptoms augmented; pulse 120, small, wandering, but no pain in the head. Repeat the medicines. Head shaved; cold applied; V.S. ad. ℥x. 11. Every symptom increased; great pain on touching the chest; pulse 126; skin hot. On the 12th, passed his urine and fæces involuntarily; and on the 13th he died, his body being covered by petechiæ.

The head, on examination, showed pus under the dura mater, at and behind the situation of the wound he had received. The right lung adhered to the walls of the chest, where the ball had entered and passed out; the track made by it being very visible, indurated, and inflamed, from the last attack: the parts otherwise sound; no fluid in the cavity.

J. G. Hesse, Surgeon, 5th Bat., 60th Regt. Mont de Marsan, May 14, 1814.

To G. J. Guthrie, Esq.

Case 113.—Antwerp, July 28, 1815.—Thomas Stilfox, of the 1st Life Guards, aged 40, received a punctured wound of the thorax on the 18th of June, at Waterloo. The wound was inflicted by a lance, which penetrated the cavity of the thorax, between the second and third ribs, about four inches from the sternum, and wounded the right lung. He remained on the field of battle four days without assistance, during which period he had frequent attacks of hemorrhage. On his admission, considerable hemorrhage recurred. There was emphysema of the chest; difficulty of breathing; incessant cough, during the act of which the air rushed forcibly from the lung. He had also received a sabre wound, which extended from the temporal end of the zygomatic process to below the left ala of the nose, penetrating through nearly the whole of the buccinator; the parotid duct was completely exposed, but uninjured. He had several slighter wounds in different parts of the body, and a considerable one of the thigh; pulse quick, hard, and wiry; tongue white; bowels constipated, not having had an evacuation for some days.

Spoon diet; V.S. ad. ℥xx. Infusion of senna and sulphate of magnesia, and mistura olacea et vin. antim. c. opio.

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June 29. Had some sleep; emphysema over the chest considerable; pulse hard and full; some blood and air escape from the wound; difficulty of breathing continues; medicine operated freely; V.S. ad ℥xij. A roller applied round the chest; the wound covered with simple dressings, those of the thigh and face brought together with adhesive strape.

30. This day the discharge from the thorax resembles blood mixed with water; air escapes from the wound, which is kept open and in a depending position. Emphysema somewhat abated; skin warm; pulse 100, full, but easily compressed; bowels open. In the other wounds there is no disposition to unite. Mistura demulcens.

July 1. Passed a restless night; pulse increased in strength, with considerable febrile action; severe cough; complains of pain in the chest; emphysema as at last report. Twelve ounces of blood were taken from the arm, and the mixture was continued.

2. Cough and respiration somewhat relieved; discharge from the wound of a thin dark colour; pulse still full; bowels costive; no disposition in the other wounds to unite. Ol. ricini ℥j. Misturæ oleosæ c. opio.

3. Has been delirious through the night; no sleep, and is incoherent this morning; pulse 100, but weak; discharge from the wound excessively copious and fœtid; tongue dry; has had two small evacuations.

4. A considerable sinus has formed in the thigh, under the rectus muscle, with a purulent discharge. In other respects as at last report. Infusion of cinchona with sulphuric acid, alternately with the demulcent mixture.

6. Was attacked with severe cough and vomiting last evening; copious discharge from the wound of the thorax, and excessively fetid; the emphysema has abated; countenance sunk; pulse hurried, and very feeble. The bark and the demulcent mixture were continued, with an increased quantity of opium.

7. Cough and vomiting abated; when questioned, says he feels no pain; his respiration is quick and hurried, and he appears to be gradually sinking.

8. Debility increases, with considerable emaciation and low delirium; sleeps little, and that disturbed. Medicines continued.

10. Was attacked this morning with an obtuse pain of the side, opposite the site of the wound, extending to the mediastinum, accompanied with considerable difficulty of breathing; dry cough; heat of skin; anxiety, and thirst; pulse weak, soft, and irregular; bowels confined. A blister was applied as near the seat of pain as could be done; he took a mixture of nettle tea and camphorated tincture of opium, and had a purging enema.

11. Pain complained of yesterday is relieved; debility extreme; discharge from the wound intolerably offensive and acrid, excoriating the surrounding skin; cough dry, with little expectoration, and that pure pus; great thirst; restlessness; frequency and irregularity of pulse; air passes through the wound, causing a peculiarly stridulous sound.

12. Immense discharge of pus from the chest; the wound of the face is gangrenous; considerable difficulty of breathing, attended with wheezing and sense of suffocation; pulse weak and intermitting; tongue dry, and covered with a dark-brown fur. The infusion of bark was continued, and demulcent mixture with opium.

14. Died at seven o'clock this morning.

On dissection, the lung on the wounded side showed evident signs of considerable inflammation having taken place; the pleura was covered by coagulable lymph; and the wall of the thorax exhibited the same appearance, with adhesions in several places; several abscesses were found in the substance of the lung, and the wound, which had penetrated deeply into the upper lobe of the right lung, was partly in a gangrenous state. His strength throughout was supported by light fluid diet, and latterly by some wine.

S. B. Bruce, Surgeon to the Forces.

Case 114.—Mr. Drummond was wounded by a pistol-ball in the back, low down, about two inches from the spine, and three inches from the inferior angle of the scapula, which was afterwards found to have entered between the eleventh and twelfth ribs, and to have passed between the base of the lung and the diaphragm, abrading the former, and passing through the latter into the abdomen, ultimately lodging in the fat under the skin, over the cartilage of the eighth rib of the left side, nearly at an opposite point in front. From the absence of all symptoms of shock and alarm, it was hoped by some that the ball might have run round, but on the removal of the little ball its course could not be traced. This occurred on Friday. On Saturday morning at five o'clock he suffered great uneasiness and difficulty of breathing, accompanied by a particular catch or jerk in respiration, indicating a wound of the diaphragm. The stethoscope and the ear attested the clearness of the respiratory murmur in every part of the chest, which sounded well, and I was satisfied the lung was not materially injured; twelve ounces of blood were drawn with difficulty from both arms. At ten o'clock, the jerk and difficulty of breathing being greater, the left temporal artery was opened, as no blood could be drawn from the veins; five ounces only could be obtained; a dose of calomel and a senna draught had been accompanied by the discharge of a teaspoonful or two of blood, leaving no doubt on my mind that the ball had penetrated the cavity of the abdomen, as well as of the chest, and that a bowel had been injured. With a constitution apparently unequal to bear an inflammation of the most dangerous character, or the remedies necessary to subdue it, the prospect was but melancholy; thirty-six leeches were applied around the wound in front, but they drew little blood. Pulse from 108 to 112. Dr. Hume, Mr. B. Cooper, and Mr. Jackson were added in consultation until Monday at twelve, when the jerk became worse, the oppression in breathing greater. Mist. morphiæ, gr. ss.; at two bled to twelve ounces; blood very buffy; calomel, gr. ij., opii gr. ½, every two hours. In the evening, V.S. ad. ℥xiv., as no more would flow. Tuesday morning, five o'clock, V.S. ad. ℥xij., as he could bear no more. The ear now indicated for the first time effusion. It was not, however, in sufficient quantity to render its evacuation necessary. After this he gradually sunk, and died on Wednesday morning. He lost on the whole fifty-six ounces of blood. On examination after death, it was found that the ball, after entering the cavity of the chest, slightly abraded the left lung at its lower and inferior edge; which was covered by recent lymph, the lung being internally sound. The left side of the chest contained nearly a pint of red-coloured serum. The ball had perforated the diaphragm, or muscular partition dividing the chest from the abdomen, grazed the fat of the left kidney, passed through the great omentum below the stomach, to the part where it was extracted, injuring no very important organ in the abdomen in its transit, but giving rise to an effusion of blood from some small vessel which had sloughed, and which was found coagulated and diffused to the amount of twelve or more ounces; this I believe to have been the immediate cause of death.

Case 115.—Jan. 16, 1846.—*Wound of Lung, from the Lancet: Dr. Moore, of Plymouth.*—Mr. Lennen was wounded by a musket-ball, in December, which entered about the right sixth rib, midway between the spine and the scapula. He fell, became faint, and experienced a sensation of suffocation accompanied by bloody expectoration. As blood issued in large quantities from the wound, some rags or cloth were stuffed into it, and bound on with a sash, which gave great relief. Carried to the Havannah, the wound healed slowly; in the March of the second year, 1798, being in Kingston, Jamaica, he dined in public, drank wine, and coughed up something which proved to be a part of his shirt and nankeen jacket, which he had worn in action fifteen months before. Each piece was about an inch and three-quarters round, with jagged edges. In London, suffering from uneasiness in the lower part of the chest, from the part where he supposed the ball was lodged, he was desirous of undergoing an operation for its removal, from which he was dissuaded by Sir A. Cooper, and he died of paralysis, in August, 1846. On examining the chest, the left lung was found adherent to a great part of the costal pleura, and the lung appeared to occupy an enclosed space, the mediastinum bulging into the right cavity of the chest. The right lung was contracted to one-third of its natural size, and adhered to the upper part of the chest; its consistence was flaccid, and entirely wanting the resilience and mottled appearance of a healthy lung: indeed, although portions of it floated in water, it may be questioned whether, during life, it was of much use. The track of the ball could not be perceived. The shot had entered between the fourth and fifth ribs, fracturing the former; was embedded in the substance of the lung, and firmly attached by a pedicle half an inch long, consisting of condensed lung and cellular membrane, to the inner surface of the third rib, just at the junction of the osseous and cartilaginous portions. The ball was shown to be completely surrounded by the substance of the lung, being contained in a sac so closely in contact with it, that it was difficult to remove it when half exposed by incision. There was no serous effusion in this cavity of the chest, the lower two-thirds of which were occupied by the diaphragm, which rose as high as the sixth rib (in the inclined position of the body), and pressed upwards to such an extent that, on making an incision from above into the convex part of the diaphragm, the knife, instead of exposing the posterior edge of the liver, disclosed the large intestines. The sensation of the ball being situated low down in the chest could not be accounted for.

Case 116.—Dr. Houston, in the ninth volume of "The American Journal of the Medical Sciences" for 1845, has related the case of a man who, when twenty years of age, lodged [illegible] accident the contents of his gun in his [illegible] consisting of a large ball, a thick linen patch, and some tow wadding, which entered [illegible] the ribs and sixth rib, inflicting [illegible] The ball passed in the direction of the rib, and was extracted by the side of the spine with a small piece of bone; some wadding was [illegible] from the orifice of entrance; blood was [illegible] and considerable hemorrhage took place from the wound. He partially recovered, so as to undertake the ordinary duties of life, but suffered always from cough, the formation of abscesses in the axilla, and was best in health after such occurrences. Some seventeen years afterwards the cough and general derangement of health were accompanied by severe spitting of blood, which alone gave him any alarm, and from which he gradually recovered. Worn out by indigestion, cough, expectoration, and at last by cholera, he died twenty-five years after the receipt of the injury. On examination after death, the upper portion of the lower lobe of the left lung was found in a state of complete hepatization, and attached to the wall of the chest, for about two inches around the anterior opening made by the ball, by very strong adhesions, and behind in a similar manner, a piece of the sixth rib having been carried away by the ball in its exit. There was a cavity in the lung in the direction of the course the ball had taken, communicating with the anterior opening between the fifth and sixth ribs, which was circular, and capable of receiving the little finger. In this cavity the linen patch was found, coiled up in the shape of a silkworm, and which, when soaked in warm water and spread out, was found to be two inches and a half long by two in width. The stethoscope disclosed nothing that might not have been expected from the general history of the case. The remaining portions of the lung were in a healthy state.

Case 117.—A soldier was wounded by a musket-ball, which, after breaking the head of the humerus, and rendering amputation at the joint

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necessary, penetrated the chest a little above and to the outside of the nipple, and lodged. Dying at the end of twenty-five years, during which time he had suffered frequently from hemorrhage from the lungs, and from difficulty of breathing approaching to suffocation, the ball was found lodged, surrounded by the substance of the lung, and attached between the third and fourth intercostal spaces. The cavity in which it was found was regular, and communicated with several dilated bronchial tubes.—*Revue Médicale*, tome 4, page 301.

Case 118.—Dr. Stokes, in the third volume of "The Dublin Journal of Medical Science," relates the case of a man who was wounded by a musket-ball in the left intercapular region, which perforated the lung, and lodged anteriorly close to the insertion of the diaphragm. This patient suffered exquisite and increasing pain, from the time of his wound to the period of his death, little more than a fortnight afterwards. The slightest attempt at extension of the side brought on such suffering that he constantly kept himself bent down to the left side, and when Dr. Stokes saw him, the side was two inches less than the opposite one, which, with the occurrence of bronchial respiration in the postero-inferior portion, caused great doubt in the minds of some of his attendants as to the existence of an empyema. The heart was displaced, and pulsated strongly at the right side of the sternum. The operation of puncturing the chest was performed, but the operator made the incision too low, misled by the great contraction of the side, and entered the abdomen. On dissection, the pleura was found to contain a vast quantity of matter, and was extensively covered by coagulated lymph. The ball had passed through the lung from above, downwards and forwards, and its track was greatly dilated by the effusion, and lined also by lymph.

Case 119, by Mr. Keate.—A gamekeeper's gun burst at the Red-house, Battersea, and a small part of the lock entered the middle of the arm, and passed upwards into the axilla, whence it could not be traced by Mr. Keate, who saw him within an hour after the accident. The symptoms which followed were those of inflammation of the chest, which were subdued by active treatment; the wound healed, and he returned to his occupation in Wiltshire. Having exposed himself to the night-air some time afterwards, the inflammation of the chest returned, and he died. On opening the thorax, one edge of the bit of iron was found impacted in the surface of the lung, the other edge was rubbing against the inside of the sixth rib, which was nearly worn through by the constant friction it underwent during respiration; there was also a mark on the pericardium as of a cicatrix, and of a graze on the surface of the heart.

Case 120.—Sir E. Home had an opportunity of examining the body of a gentleman, who died thirty-two years after being shot through both sides of the chest. The ball entered on the left side, between the third and fourth ribs. Great bleeding took place from the lungs, and he slowly recovered in the next three years.

On removing the sternum and exposing the lungs to view, their external surface was found healthy. The spot where the ball entered the lung on the left side was very readily discovered by the remains of a small cicatrix; the membrane at that point being thinner than common, and having a punctured appearance, which terminated in a central point. This part of the lung had not the slightest adhesion to the pleura, but was in its natural detached state. The course of the ball through the substance of the lung was traced by dissection, for an induration of the substance of the lung was formed wherever it had passed, as seen by making transverse sections of the thickened parts. The appearance of the lung in the right side was of the same kind, but less in degree. The course of the ball was through the upper lobe of the right lung, about two inches and a half from the upper part. The portion above this did not contain air; was more dense than natural, and sunk in water; but was not shrunk or contracted, and contained some serum.

Case 121.—Among the French prisoners in Lisbon, in the spring of 1813, I saw a man in whose chest a ball had entered midway between the fifth and sixth ribs, and lodged, and from which a constant and considerable discharge of purulent matter took place. As he appeared about to sink under his complaint, I desired to be informed when his death took place, that I might be present at the examination. It proved to be a case of a ball lying between the diaphragm and the spine, surrounded by coagulable lymph, and adhering by its envelope to the spine and diaphragm at the angle formed between them; there was a very thickened pleura costalis, the lung was shrunk and attached by membrane almost equally thickened across the chest, the lower part was filled in the upright position by the discharge, which was only evacuated in quantity when the opening of the wound was made dependent.

I saw a case after the battle of Waterloo, among the French wounded, somewhat similar. A portion of rib had been driven in, and the assistant-surgeon was aware that the ball could occasionally be felt. The man died at the end of a fortnight, the cavity containing a quantity of sero-purulent bloody matter. The lung had been injured by the ball, which had fallen loose into the cavity.

The removal of splinters of bone, or of other foreign bodies from the lung, has occupied the attention of surgeons from the earliest periods, and some of them proposed to draw a piece of cambric, and other things, through the chest, for the purpose of removing them. These extreme measures have been abandoned, but there can be no doubt of the propriety of removing as many of these causes of irritation as can be either seen or felt. I have already said, if the ball has broken a rib, the orifice of entrance especially should be enlarged as early and as carefully as possible, so as to give an opportunity for the removal of the splinters, and of all angular points of bone which may be turned inwards. A little addition to the original opening, if such addition be necessary, can do no harm, and, if the lung should be adherent, will enable the surgeon to see whether any splinters are impacted in it, and to remove them. It is possible that the end of the finger may be even introduced, and the lung felt, if it should not have receded too far; and, as it is insensible to such an operation, no evil will ensue; but all probings with small, sharp-pointed instruments should be avoided. Of the effect of such large incisions as that stated in the following case I have no knowledge. That wadding, buttons, pieces of cloth, and of bone, have been frequently coughed up, I have had experience; and, although it is said balls have even been brought up, I have not had an opportunity of seeing them, and place neither hope nor faith in their occurrence, although I disbelieve nothing. Dolœus asserts that a soldier coughed up a ball, by which he had been wounded many years before. Murat declares that he found a ball in the lungs of a man who lived twenty years after he was wounded, in good health. Percy says, his friend Ch. Marquis de Bavilly, wounded ten years before, was then in good health, having spat up several pieces of wadding with which the gun was loaded. I have seen several persons expectorate pieces of cloth and splinters of bone, after the lapse of a considerable time, and recover, but never a ball. These cases are exceptions to the general rule, that such wounds are usually fatal; but do not the less show the necessity for every fair attempt being made to remove such foreign matters at the earliest period.

Case 122, by Guerin, "Mem. de l'Académie de Chirurgie," tome 2, p. 215.—An officer was wounded by a musket-ball, on the 9th of July, 1745, which passed through the chest, entering in front, and fracturing the seventh rib near its junction with the cartilage attaching it to the sternum, and passing out behind, near the angle of the same rib, which it again broke, together with the one immediately below it. The openings of entrance and of exit were each enlarged to the extent of nearly two inches, by dividing the pleura, the intercostal muscles, and the integuments, from within outwards. Several splinters of the rib which injured the lung were removed, of which the smallest might be half an inch or six lines long, by two wide. A tent was then passed through the wound. The patient suffered much, spit a great deal of blood; pulse feeble; extremities cold. He was bled three times the first night, and twenty-six times during the first fifteen days, the seton being retained in the chest the whole time. On the twenty-second day, a piece of cloth was felt by the finger, after removing the seton, and was extracted; a splinter was also felt, but so deeply that it could not be removed without enlarging the incision. As the inflammatory symptoms were re-excited, he was bled for the twenty-ninth time. On the thirtieth day, these symptoms had so much increased that the seton was withdrawn, under the impression that it was doing more harm than good, and the thirty-first bleeding was effected. The next morning the patient complained of something pricking him within, and the parts left between the two original wounds after the incisions which had already been made were divided. The chest was now open from the articulation of the head of the rib with the sixth and seventh vertebræ behind, nearly to the cartilage in front; and we saw the whole course of the ball, which had made a groove in the surface of the lung, in the substance of which a splinter was sticking. This was extracted, and the wound dressed simply, after which the patient gradually improved, and was quite cured in four months.

The two first incisions for the removal of the splinters were necessary. The tent or seton drawn through the chest was a great error; and, although the fortunate result of the case depended probably on the removal of the splinters of bone sticking in the lung, I fear few would survive the operation performed for their removal.

When the lung can be seen through the opening made by the ball, or after some moderate enlargement for the purpose of removing any splintered pieces of rib or any spiculæ which can be perceived, this object is attained. I have not had experience of the utility of large incisions for the purpose of making the lung more visible, although the importance of extracting foreign substances at first is admitted, provided their situations can be distinctly ascertained.

Case 123.—A Spanish soldier, wounded at the battle of Toulouse, was brought to me the same evening, shot through the right side of the chest, between the fifth and sixth ribs, one of which was fractured, the ball passing out nearly opposite behind. On removing the splinters by the aid of an incision, I found that the lung was adherent to the inside of the chest, and I was enabled to withdraw from within the lung some splinters of bone, and a part of his coat. He left Toulouse apparently doing well, but, as I have frequently stated, natives of warm climates rarely suffer from such severe attacks of inflammation as those of northern habits and constitutions.

The adherence of the lung to the pleura lining the walls of the chest was doubtless the principal cause of his safety.

Case 124.—A soldier of the German Legion was wounded at the battle of Waterloo, the 18th of June, 1815, by a musket-ball, which entered between the seventh and eighth ribs in front, about two inches from the sternum on the right side, passing out behind. He died in York Hospital, Chelsea, in the month of January following, where he was brought after some drunken fits at the Savoy barracks, which induced an attack of pneumonia. A fistulous opening existed, and had discharged a little matter which was gradually diminishing; the sinus was from six to seven inches long, extending into and nearly through the base of the lung, and was lined by a mucous membrane, the lung around being thickened to the extent of from a

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quarter to half an inch. There was but little fluid in the cavity, although the lungs on both sides showed signs of recent inflammation, without which he would in all probability have recovered. The orifices of entrance and of exit through the lung adhered to the walls of the chest, and thus separated the track of the ball from the general cavity of the pleura, and would have led in all probability to his ultimate recovery, if it had not been for his intemperance.

When splinters of bone, or other foreign substances, sticking into the lungs, are thrown off early, they are apt to fall down upon the diaphragm, and become fatal sources of irritation, of which I have seen several instances.

When a ball, or portion of bone, leather, cloth, wadding, or other foreign substances, are driven into the cavity of the pleura, they usually give rise to fatal results, constituting, therefore, cases of the greatest importance, to which attention has not been sufficiently given, but on which too much cannot be bestowed, if life is to be preserved by the art of surgery. The neglect of these cases has probably arisen from the insufficiency of the means of ascertaining them, an insufficiency which auscultation has in some measure removed, and which the science of surgery may further elucidate. The presence of a ball, a piece of bone, or other substance, lying upon or rolling about on the pleura, covering the diaphragm, must, it will be conceived, give rise to more or less irritation, inflammation, and consequent suppuration, or the formation of matter upon the surface of that membrane in its thickened state, until, in all probability, the foreign substance is removed, or the persons waste away and die. Baron Percy, in his "Manuel de Chirurgien d'Armée," page 125, alludes to several cases in which balls have been known to roll about in the chest, and the patients have recovered. This observation has been copied by several of those who followed him, but, disbelieving the accuracy of the statement, I referred to such of the authorities alluded to as I could procure, and do not find that they authorize it. Diemerbroeck, who has been quoted for one case, says, in his eighty-eighth observation :—

Case 125.—A young woman was wounded on the 20th of May, 1637, by a musket-ball reflected from the slating of a roof, which entered the chest between the fifth and sixth ribs, about three fingers' breadth from the spine, and, going slantingly through the external part of the lung, struck against and broke the under part of the fourth rib, without, however, passing through it, but remaining in the cavity of the chest; little blood flowed from the wound, but a good deal was coughed up on the second day. She did not complain of pain except in the wound behind, and where the rib was broken in front; this in a short time subsided, and the broken rib united. On the 30th of May she became exceedingly ill, and was supposed to be dying, but was relieved in the evening, on spitting up a great quantity of pus mixed with a little blood. The wound discharged but little, and nothing from the cavity of the chest. On the 7th of June a little more pus was coughed up, and in ten months she was cured. At the end of a year she only felt, on any great exertion which increased her breathing, a sense of weight referred to the diaphragm. The ball in this case is not said to have rolled about, and in probability was lodged where it struck.

In his annotations on this case, he mentions that of a man stabbed by a knife quite through the right side of the chest, who, after two years of great suffering, recovered, the greater part of the lung being so destroyed by suppuration, that when he threw himself violently backwards and then forwards, it was heard to strike against the sides of the chest, like the clapper of a bell. At the end of ten years he saw him quite well. There can now be little doubt that the noise arose from fluid in the chest, and that the lung was in all probability bound down to the spine by adhesion, as is known to occur in such cases.

He also relates another nearly similar case, in which the wound was kept open by the fingers whilst lying on the face, until all the effused blood was discharged from the chest. It was then closed, and the patient recovered, so as to be free from inconvenience from it afterwards; and he refers to Hildanus, Fontanus, Pareus, Jessenius, &c., in proof of such recoveries, even when portions of the lung had been cut away, which cases I cannot find.

Case 126.—A dragoon of the King's German Legion was wounded between the eighth and ninth ribs, at the battle of Salamanca; the ball had entered and lodged; the symptoms were severe; the breathing very laborious, and, as the discharge from the wound was not free, I enlarged the wound, removed some scales of bone, a bit of cloth, which stuck between the ribs, the lower of which was broken, and evacuated a great quantity of bloody-coloured fluid, not purulent. After a few days the discharge became purulent, and, as he felt something, as he thought, roll within him, which he supposed might be the ball, I contemplated again enlarging the wound, so as to be able to see whether anything was loose in the cavity. A sudden relapse of inflammation, from drinking imprudently a little *aqua diente*, or brandy, carried him off. On examination, the ball was lying loose on the diaphragm, in the chest, and might with some enlargement of the wound have been extracted.

Case 127.—A French prisoner of war, who had been wounded on the frontier of Spain by a musket-ball, which lodged in the left side of the chest, had been sent to Lisbon in 1812, with a considerable discharge through the wound, of which he died; some few days after I took charge of the station, this case was mentioned to me as a curious one; the ball being found in the angle formed between the diaphragm and the spine, enveloped in coagulable lymph, by which it was attached to the spine; there were some splinters of bone enclosed with it—an occurrence which took place generally—from which the sufferer was for a length of time confined in the recumbent position to his bed.

Case 128.—A soldier of the 29th Regiment was wounded at Talavera by a musket-ball, which penetrated the right side of the chest, between the fourth and fifth ribs, and lodged. He died on the day afterwards, and, on opening the body, I found that the ball had passed through the lung, and was lying loose on the ribs behind, neart he union of the diaphragm with the spine.

Case 129.—Major-General Sir Robert Crawford was wounded at the foot of the lesser breach at the storming of Ciudad Rodrigo, by a musket-ball, which passed through the posterior fold of the armpit, and entered the side of the chest in the axilla by a small opening or slit apparently too small to allow a ball to pass through. I saw him with Dr. Robb a few minutes afterwards, when, from the general anxiety manifested, I was satisfied of the severity of the injury. The symptoms were not at first urgent; but their continuance and augmentation, in spite of the most rigorous antiphlogistic treatment, led, in a few days, to his death. On examination of the body, the ball was found rolling about on the diaphragm; the cavity of the chest contained a large quantity of very turbid serum; false membranes had formed on the lungs, which were compressed towards the spine, and at the upper part retained the mark of an injury as from a ball which had not force enough to penetrate and lodge.

Case 130.—A law-writer was admitted into Guy's Hospital, under Mr. Key, on May 7, 1845; he had shot himself with a pistol, making a wound, in length about two inches and a half, to the left of the sternum over the sixth rib. On the 8th, two small bullets were removed from over the angles of the tenth and eleventh ribs behind. Some pieces of bone being removed from the wound in front, air gushed out, indicating, possibly, an injury of the lung. Respiration in the upper part of the lung, feeble but distinct; no hæmoptysis; no pain, except on motion, when it becomes acute; pulse 94. 9. Pain in the left side; expectorates very little blood, and some yellowish muco-purulent sputa; respiratory murmur still audible in the upper surface of the lung; great debility. 10. No spitting of blood; pain the same; vomits frequently, and of a dark coffee-ground appearance; the oozing from the wound has been rather copious, and now has an offensive smell, consisting chiefly of blood and serum. 11. A more copious discharge of bloody serum, and continued. Some wadding and other extraneous matter were removed from the anterior wound. On the 12th he died. On examination, the parts about the anterior wound were found sloughy and gangrenous; the sixth rib comminuted. The fifth and seventh were also fractured. A spiculum of bone was projected into the lung, which presented a half-collapsed appearance. An old firm band of adhesion behind the left nipple. The effused blood into the left pleura was scanty, and of a thick bloody or purulent nature. The balls in this case appear to have struck the patient in the act of expiration, when the diaphragm had ascended, pushing the lung upwards. The balls, therefore, penetrated it in front, after going through the anterior and lower part of the lung, and thence into the abdomen, causing a deep and rugged furrow across the upper surface of the spleen; they then re-entered the chest, making another and more ragged perforation of the diaphragm, went through the posterior base of the lung, about an inch from the angle of the rib (the eleventh) behind. There was no blood or fluid in the abdomen.

Two different students who were present at the opening of the body inform me that the third ball was lying loose near the spine.

In this case Dr. Addison pronounced the lung to be carrying on its respiratory functions in the usual manner in the first instance. If the patient had lived longer, it was supposed he might have suffered from hemorrhage from the spleen into the abdomen, unless it adhered to the diaphragm, when the fluid might have been poured into the chest.

Under all these circumstances the practice to be pursued, if the patient had lived some eight or ten days instead of six, would have been to have enlarged the opening behind, and have carried it into the thorax, so as to have evacuated the fluid which could not have found its way out by the anterior opening.—G.

Baron Larrey has had the good fortune to meet with some remarkable cases of this kind. In the first he did not see the man for some weeks after the wound had been inflicted, the ball entering the upper edge of the fourth rib, about an inch from its junction with the cartilage. By means of a bent and flexible sound introduced through the wound, he distinguished a hard, metallic substance at the bottom of the cavity of the chest, which he supposed to be the ball, and nearly in the situation of the place where the operation for empyema is usually performed. This operation being done, about twelve ounces of pus escaped, and the ball was discovered rather flattened. It was easily removed by a pair of polypus forceps. After this there was every prospect of recovery, until the patient, unfortunately, having one day drunk too much brandy, was attacked by enteritis, and died.

Case 131.—Louis Claye, twenty-six years old, was wounded at the battle of Mohilowe, in Russia, the 22nd of July, 1812, by a musket-ball, which penetrated between the eighth and ninth ribs of the right side. He fell insensible, and remained two days on the field of battle, likely every moment to be suffocated. He lost a considerable quantity of blood by the wound, and by the mouth especially, for five days. Effusion took place into the chest about this time, and one of the surgeons in attendance enlarged the wound, and let out several pieces of cloth, and a pint of bloody serous fluid, mixed with clots of blood. After this the patient gradually improved, and was sent to the hospital of Thorn, in the rear, where, after some weeks, the wound closed for a short time; an abscess afterwards formed at

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the edge of the false ribs, and broke, discharging a great quantity of purulent matter, and several more pieces of sloth, after which it healed. The original wound now ulcerated, and discharged also a considerable quantity of dark-coloured purulent matter, which continued to drain away during four years, until he arrived in Paris, the 15th of June, 1816. Baron Larrey, after examining the cavity of the chest with an elastic sound, discovered the ball at the bottom on the right side. The fistulous opening was small, the discharge great, fever hectic; he therefore enlarged the wound, and caught the ball with a pair of forceps; the space between the ribs was not, however, sufficiently great to allow of its being drawn through, the ribs having approximated to each other, in consequence of the gradual flattening of the chest. Under these circumstances the baron decided on cutting out a portion of the superior edge of the lower rib, which he effected by the lenticular or buttoned knife, used for the removal of points of bone after the operation of the trephine. After enlarging the wound horizontally and perpendicularly, he removed two-thirds of the rib, by successive layers, before the semi-circular opening was large enough to allow the ball to be drawn out with great difficulty. Some serious symptoms which followed the operation gradually subsided; when, on a sudden bending of the body, the patient fractured the portion of the rib which had been left undivided, and tore the intercostal artery, from which he lost so much blood as to place his life in danger. The bleeding was arrested by the compress of Desault; and the patient escaped from the difficult situation in which he had been placed, after thirty days of great anxiety and constant care. He returned home on the 1st of October, 1816, and recovered his health; the side of the chest being, however, flat, respiration extinct, &c.

Case 132.—A soldier of the ex-guard was brought to the hospital of Gros Caillou, in August, 1814, in consequence of having been wounded at the taking of Paris by the allied forces, and in some degree neglected. The ball had penetrated the chest, carrying away the upper part of the fourth rib, from which wound he lost much blood at the time, and expectorated a considerable quantity. It had now become fistulous, and matter was freely discharged from it when the opening was made dependent. He was very thin, and suffered from heotic fever. On examining the cavity of the chest with an elastic sound, it struck below upon a hard metallic substance, which I supposed to be the ball, and which, by external measurement with the same sound, appeared to be nearly in the situation in which the operation for empyema is performed, which operation having been done, three palettes (twelve ounces) of pus were evacuated, and the ball discovered, and extracted by a pair of polypus forceps. Some inflammation followed, but was dissipated in two days, and the superior or original opening shortly healed. The patient's strength was supported, and he gradually improved, so as to offer hope of recovery; when he was seized with enteritis, after drinking brandy, and died, six months after the receipt of the wound, and 100 days after the removal of the ball. On opening the body, the seat of the discharge, from the small opening which remained, was found close to the opening made by the knife; the two ribs nearly touched at this part; the pleura costalis was enormously thickened, the mediastinum was depressed towards the injured side, and a gangrenous mass, supposed to be the obliterated lung, filled the upper part of the cavity, which was greatly diminished in size.

Case 133.—William Barrett, of the Life Guards, a middle-aged muscular man, of full habit, was wounded by a musket-ball, at the battle of Waterloo, which fractured the third and fourth ribs behind the left side, and broke the left arm. He was brought to Brussels, where the inflammatory symptoms were subdued by repeated general and local bleeding, and the other ordinary but strict antiphlogistic means, during the first six weeks, by which time the external wound had nearly closed, and no trace could be perceived of the ball. At the end of this time, Staff-Surgeon Collier, now inspector-general of hospitals, under whose care he was, and who furnished me with these particulars of the case, which I saw in Brussels, and in which I was interested, found that his symptoms became worse, that he had rigors and evening exacerbations; and that the difficulty of breathing had increased almost to suffocation; he decided on opening into the cavity of the chest, by following, if possible, the course of the ball. This he did by a deep incision, which enabled him to remove with difficulty some pieces of the ribs which were denuded but not detached. A baglike protrusion was then felt between the ribs, near their angles, which was opened, and nearly two pints of thick fetid pus escaped; the relief which followed being as complete as sudden. The wound was dressed from the bottom, and every means adopted to prevent its closing, except introducing a tent, but in vain; the opening closed, and matter again collected, requiring a second incision for its removal. Between these two operations, small bleedings were resorted to most beneficially. A short gum-elastic catheter was introduced into the cavity of the chest, after the second incision; but little matter, however, was secreted, perhaps from the very guarded treatment pursued, and his reduced state of health. From this he gradually recovered, and was sent to England, cured, in November—being, as Mr. Collier remarks, one of the most gratifying cases he ever treated.

CLINICAL OBSERVATIONS ON SOME OF THE MORE FREQUENT DISEASES OF CHILDREN.

By W. HUGHES WILLSHIRE, M.D. (Edin.), M.B.S., Physician to the Royal Infirmary for Children, &c.

(Continued from p. 475.)

Gentlemen,—In continuance of the subject of *remittent fever*, I must tell you that I have very little to say upon the nature of its *remote* causes. That it occurs both in a sporadic and epidemic form there cannot be the least doubt; and that it is more common amongst the children of the lower classes than amongst those of the upper is also the case. Those children, too, who live with their parents in ill-drained, damp, low, badly ventilated and lighted places, suffer more from it than others do; and, further, the type of the fever in these cases has a tendency to assume the more adynamic characters. The older the child this is more likely to be the case. Upon the subject, however, of the remote causes of infantile remittent, I must refer you to works on general pathology and medicine, for there is nothing special about them in relation to our present fever, or what is not identically the same as relates to those of fever in general. The same deleterious influences which impress the constitutional disturbance called *continued fever* on the adult, impress *remittent fever* on the child when these influences can be brought to bear upon its system. I lately had to visit a boy of between twelve and thirteen years of age suffering under true typhoid fever. On my first visit, immediately I entered the house, I was struck with the offensive odour and disagreeable feelings I experienced. I remarked them to the mother, who admitted such would often be the case. I thought there was then an influence at work that would soon affect other members of the family. This boy's fever ran a long and severe course; about the middle of it a younger child was attacked with *remittent* fever, accompanied by head symptoms; and a still younger, who was cutting his teeth, soon experienced such constitutional disturbance that, had he been a little older, would have run on into a confirmed febrile condition. He seemed to me to have been subjected to the influence of the zymotic particles, whatever they were; but the nature of his infantile constitution would not allow of their making their usual impression, so as to affect the system with idiopathic fever. But I have no doubt this child's organic and assimilative functions are being now overruled by this influence, under which he is being brought up, and which may tell seriously upon him in a short time.

Not only is the fever sporadic and epidemic, but it is endemic as well in unhealthy places. I can give you no information upon statistical points, either as regards where or when it is most prevalent in this country, as I find that it is requested in the Registrar-General's Report (see Fourth Annual Report, page 149) that the terms remittent fever are "not to be applied to cases sometimes called 'infantile remittent fever' (see 80), nor to any but cases of the genuine remittent fever, so prevalent in the tropics and rare in England." I find, also, on referring to the number 80 alluded to, that "infantile remittent fever is, according to some pathologists, a sub-inflammation of the intestinal tube;" so that it is expected, I presume, the fatal cases of this form of fever will be placed under the head "gastritis and enteritis." Yet, notwithstanding, I find in the Fifth Annual Report that in 1840, in twenty-four town districts, sixteen males under ten years of age died of remittent fever, and that twenty-five females did the same. But again, in the Sixth Report, at page 511, it is stated that "six males and six females, six under one year, one one year, four respectively two years, and one four years," have been put in the "abstracts" under the head of *worms*. In the Seventh Report it is stated, again, that in this metropolis, during the year 1844, sixteen males under ten years of age, and thirteen females, died of remittent fever. Now I confess I am rather puzzled in finding out upon what we are to depend in relation to the point in question.

Dr. Copland remarks that many of the children born of European parents in hot climates are cut off by remittent fever before they reach their sixth or seventh year. Dr. Sims describes the epidemics as they visited London in the year 1769 and 1770, simultaneously with the prevalence of fever of a low nervous type amongst adults; and Maunsell and Evanson admit that it "indeed appears at times to spread epidemically." During its epidemic prevalence some writers, like Dr. Butter, &c., appear to think it is occasionally infectious. When it assumes the adynamic forms, I am myself disposed to agree in this opinion.

I shall now advert to the *treatment* of remittent fever. This, of course, will vary in some of its details, according to the type of the disorder and its complications, or the intercurrent affections which may arise during its course. I shall first assume you have a simple uncomplicated form to deal with. In the generality of cases you have costiveness, at least, at the outset of the disease. Not only this, but the whole length of the digestive canal and its appendages are usually all out of order. These things must first be put to rights. In young children, give a powder composed of rhubarb and soda, and order, four or five hours afterwards, a full dose of castor oil to be administered. If the stools are said by the mother to be pale, diminish the quantity of soda and add a grain or two of hyd. c. cret. In older children give at once an aperient of calomel and jalap, and follow it up by a senna draught. Should worms be present in either, a grain or two of scammony—the dose varying according to age—should be given with the powder I have mentioned. Frequently you will have to continue the rhubarb and soda every night, or sometimes night and morning, as the intestinal movements are languid and retained matters have to come away. You will also in older children have to give them a stronger purgative in the same manner; but in neither do I advise you to repeat very often either mercury or scammony. These drugs are only to be employed under their proper indications, and not to be regarded as common purgatives. After the bowels have been got into proper order, a moderate dose of a cathartic will answer all purposes. The first action forced on the lazy tube may be pretty strong, but you are not to proceed during the whole course of the disorder in such a vigorous manner.

With this attention to the bowels give a saline,

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either the nitrate of potash in a carminative water, or a common draught of liq. ammon. acet., with a few drops of the wine of antimony, every three or four hours. If the stools are acid, the breath acid, the stomach irritable, nausea or vomiting present, instead of these mixtures give one composed of soda, the dilute hydrocyanic acid, and caraway-water, and apply a mustard poultice to the epigastrium. If the cough be troublesome, add a little wine of ipecacuanha to the mixtures, and apply the sinapism to the chest or between the shoulder-blades.

If, along with this gentle action on the bowels, the use of the saline mixture, and the mustard cataplasm, you pay attention to the hygiene and regimen of the patient, the course of the malady will be in general all that one could wish. These latter things you must not neglect; you must not allow—if you can have any power in the matter—the child to be improperly fed and cared for: it must have light milk diet, fresh air in its room, and clean clothes; it must be washed all over, and for this reason order now and then a gentle warm bath.

But you know complications may arise, or the fever put on a more severe form. You may have the abdominal complication, the bowels alternately very loose and costive; the tongue much coated, spotted red and white; the lips cracked; apthæ or stomatitis, &c., present; vomiting may be very troublesome, and symptoms of gastro-enteritis appear. If but a slight form only of diarrhœa be present, apply mustard cataplasms to the belly, and afterwards warm poultices there, or use the turpentine liniment I have so often spoken of. If with this apthæ or stomatitis exist, instead of the saline mixture I mentioned before, give the chlorate of potassa in infusion of gentian or calumba, and order borax mixed in mucilage to be applied to the mouth, or you will have to follow the treatment I shall allude to when I address you upon the subject of stomatitis. Rhubarb and soda will often be useful here, and it may be necessary to employ those measures I spoke of when I alluded just now to the treatment of vomiting. But it may happen that the diarrhœa becomes very urgent, and if so you must attend carefully to this complication. You must give antacid astringents, such as the chalk mixture, with aromatic confection and tincture of catechu; and if these do not answer you must have recourse to those agents which I spoke of when treating especially of diarrhœa. (See *Medical Times*, page 230, *et seq.*) If with persistency of the diarrhœa the child gets very thin and the bodily powers low, you must give tonics — the compound tincture of cinchona, with gentian, or quinine itself. (See *ante*, page 251.) It is particularly necessary here that you pay all attention to the diet.

If you have head symptoms come on—if the child talks nonsense in its sleep, if it sleeps very much, if the face is very flushed or congested, if the bowels are costive—purge it well, cut its hair close, apply a sinapism to the nucha, and, if it is a strong child, a leech or two behind the ears. If, however, the loss of blood be of doubtful propriety in a young, weak, scrofulous patient, apply blisters over the mastoid processes in lieu of the leeches, and cold lotions to the forehead; have the head kept raised and on a hard pillow, or not, at any rate, on one forming from the pressure a soft hot cushion around the face. In this case, the warm pediluvium with salt in it, or the placing the child in warm water up as high as the nipples, may be adopted. For the treatment of meningitis I must, however, refer you to my previous lectures (*Medical Times*, vol. xvi., page 504).

The chest complication is the most delicate to treat, and, in my opinion, requires the more cautious prognosis. If pneumonia, capillary bronchitis, or congestive catarrh, should supervene in the course of the disease, all attention must be paid to them. At present I am assuming them complications of the *simple acute* form of fever. In such you must proceed with an amount of vigour in proportion to the constitutional strength of the patient and the severity and nature of the respiratory affection. In a strong child with pneumonia you must apply leeches, cup between the shoulder-blades, put mustard poultices to the sternum, and give calomel with ipecacuanha every three hours. With these the saline nitre mixture, with wine of antimony, may also be conjoined. But in a less severe affection, or in a weak child, the leeches or cupping may be dispensed with, and small doses of antimony, calomel, and ipecacuanha, and the nitre mixture and mustard cataplasms, employed. In cases of still less severity ipecacuanha emetics, with the nitre mixture containing a little extract of hemlock and ipecacuanha wine, along with the sinapisms, may be all that is necessary. But I must keep any further remarks upon this subject I may have to make until I allude specially to diseases of the respiratory organs.

When an adynamic condition supervenes on the simple forms, or when the fever exhibits this state at its outbreak, you will have to modify your treatment. The mixture to be given must be, in the less severe cases, composed of the chlorate of potash in infusion of cascarilla or cinchona, and castor oil used as a cathartic, if the bowels are costive and there are foul matters pent up. But if the bowels are loose, then a teaspoonful of the chalk mixture, with aromatic confection, should be given after every fluid stool; the turpentine liniment rubbed along the spine, as advised by Dr. Copland, and warm poultices applied to the abdomen. In other cases it will be necessary to combine the compound tincture of cinchona with the chlorate of potash, and order the child to have strong beef gravy, which has been allowed to cool and had the fat skimmed off. Here, too, enemas of castor oil will be better than purgatives by mouth, when the bowels require to be acted on. Conditions of a still more adynamic form, and which frequently come before me, require the administration of the sesquicarbonate of ammonia in infusion of cascarilla, or with the compound tincture of bark and infusion of gentian, or of valerian, as recommended by Copland.

My experience warrants me in saying that the slow and chronic forms, whether primary or secondary, almost always require the tonic method of treatment, and in them I have found the addition of small doses of the mineral acids to the bitter infusions of considerable avail. In the more obstinate of these cases, or when the debility is very considerable, quinine should be had recourse to at once; and when, as is often the case, manifestations of scrofulous disorder have made their appearance during the course of the disease, the iodide of potassium should be combined with it. When the child is much troubled with worms, turpentine with castor-oil should be given; and, if the stools are pale or clayey, now and then a mercurial alterative will be advisable. But nothing is is so important an adjuvant as the removal of the child to a different locality; a new and fresh atmosphere will do wonders for it when the help of medicine is only secondary in importance.

This point of attention to hygiene and regimen, in all forms of infantile remittent, I cannot too strongly impress upon you. I hold it to be equally my duty to urge it upon you, as I do the fact, that you are not to follow out in so strenuous a manner a treatment advised and adopted by some, viz., that of constant purgation and the exhibition of mercurials. In this disease you have not one thing alone to do, and the chief that you will have to interfere with will be the complications. In the simple forms of the fever no one determinate heroic mode of action will answer; in the more complex you will have more indications to fulfil than one; and in all, something more than can be effected simply by mercurials and purges.

You will find it is the same here as in treating the idiopathic fever of adults—that your chief endeavours must be exerted in trying, to use Cullen's words, "to obviate the tendency to death," although, as you know, this tendency is wonderfully less strong than in the continuous fevers of adult life. Still, small as it is, your chief aim will be to oppose those of the series of morbid changes occurring during the disease, by which an untoward event, a serious complication, a local lesion, or even a fatal catastrophe appears in any individual case likely to be brought about. Your first object will be to place the patient in circumstances favourable to the decline of the disease, by withdrawing him from the operation of those causes which are known by experience to aggravate the febrile state. Your second will be to attend carefully to the nature of the prevailing epidemic—at such times when epidemic forms come before you—because you know that certain cases are marked by special modifications; and if you do attend to this point you will be able to be on the watch for them. Your third, and last, will be to attend carefully to any changes and modifications, whether of an epidemic or sporadic character, when they shall occur.

ORIGINAL CONTRIBUTIONS.

ON THE NATURE AND TREATMENT OF DISEASES AND AFFECTIONS OF THE HIP-JOINT, AND ON THE BENEFICIAL MEDICINAL EFFECTS OF THE EXHIBITION OF PROTEINE IN CASES OF CARIES.

By E. W. TUSON, F.R.S., F.L.S., Surgeon (for many years) to the Middlesex Hospital, Lecturer on Anatomy and Physiology, &c. &c.

(Concluded from page 479.)

Treatment of Diseases of the Hip.—The treatment of all diseases depend upon the progress they have made; upon the destruction they have caused to the parts they have attacked; upon their virulence, and on the effects they have produced upon the constitution; upon their nature or character; upon the time they have lasted, and the stage they have attained. These are points most essential to ascertain; and it is more important in diseases of the joints than in some other parts of the body, because the treatment will be different. To exemplify this, suppose we take a case of caries of the acetabulum where the head of the femur is in a sound state, and where it has been displaced from its natural cavity. In this instance Nature uses her best efforts to form a fresh cavity for the reception of the head of the bone, and we ought to assist in her labours by all the means in our power to accomplish this, by supporting the system by such remedies which are requisite, and occasionally gently moving the head of the bone, so as to induce a moveable joint to be established instead of a fixed one; whereas, supposing the head of the bone in a state of caries prior to its removal, we should use here our best exertions to keep the parts perfectly free from the slightest movements to produce a stiff joint, or anchylosis. Thus it becomes most important to ascertain as clearly as we are able the situation and the precise nature of the affection, and then to use such means as we deem the most expedient.

If a single plan were pointed out for the treatment of diseases of the hip in its various stages, it would be empirical and unjust, tending to mislead both the patient and attendant, and would be ultimately regarded as based upon ignorance and deception.

It will be necessary to enter upon the treatment of the diseases of the hip from their origin, and to trace the various stages of the complaint to the different varieties that these disorders are liable to assume.

Treatment of Inflammation of the Hip-joint.—It has already been mentioned that inflammation may attack the fibrous capsule of the hip-joint, the synovial membrane, the cartilage on the articulating surfaces, and the structure of the bone itself. Although the first seat of inflammation may be in either of these parts, it may extend to the adjacent parts, so as to involve them

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in the inflammatory action, or, on the other hand, the increased action may remain in the part it first attacked. Febrile symptoms generally accompany the inflammatory action. In the treatment we should take into consideration the age, sex, habit, temperament, and occupation of the patient, and endeavour to find out the cause which produced the inflammation. If from external violence, the treatment should be more active; the application of leeches, cupping, warm fomentations, the exhibition of brisk aperients, calomel, hydrargyrum cum creta, Dover's powder, saline mixture, the preparations of soda, &c., may be serviceable. The strictest attention should be paid to the best means of removing all pressure from the inflamed part, by keeping the knee raised and supported, so that the head of the femur should not press against the acetabulum; Earl's bed, or a contrivance of that kind, will prove beneficial; a double-inclined plane may be serviceable. Rest and perfect freedom from movement is essentially necessary; the diet should be strictly regulated; care ought to be taken that the hip be not kept too warm, so as to encourage the inflammatory action; the patient being on a feather-bed will cause this inconvenience, so that a mattress should be employed. If the inflammatory action assumes a chronic form, other remedies become requisite. The hip may be daily painted over with the liquor plumbi diacetatis; mustard poultices, croton oil, tartar emetic ointment, or blisters may be applied; citrate of iron, tincture of iron, liquor potassæ, gentian, bark, or quinine may be beneficially administered.

If the inflammatory action be of a scrofulous character the application of a lotion may be serviceable, composed of iodide of potash dissolved in soap liniment or in water. Tincture of iodine, or even a stronger solution of iodine, may be painted over the hip; or iodoform dissolved in alcohol or ether may be applied in the same manner with a beneficial result. Tincture of iodine, iodide of potash, bromide of potash, syrupus ferri iodidi, liquor potassæ, or quinine may be given internally, with a generous diet and plenty of milk.

Suppurative Stage.—This stage of the complaint may appear immediately after the inflammatory action, being one of the terminations of inflammation; or it may present itself at a later period, even after consequitive dislocation has occurred. Its appearance is accompanied with a dull throbbing pain, with a sense of fulness in the parts, with more or less shivering at its commencement. Our best exertions should be directed to check the formation of matter; but, should it form, we ought to endeavour to induce absorption; but, both these failing, we should assist Nature in the relief of the fluid by counter-irritation, croton oil rubbed over the hip to produce pustules, the tartar emetic ointment, blisters, or issues. The best plan, and the one which I have found the most beneficial in hospital practice, is to apply three or four small issues about the size of a sixpenny or shilling piece, and, when these have ceased to discharge, three or four more at different spots, so that a constant state of counter-irritation will be thus kept up. These remedies may be serviceable in the early stage. Should suppuration be formed in spite of these means, absorption of the fluid should be attempted by the application of mercurial ointment mixed with soap cerate, spread upon strips of wash-leather or linen; gentle and appropriate pressure, by the application of a bandage, will assist us in this object. Tincture of iodine may be used, or the emplastrum hyd. c. ammoniacum, &c. Should the collection of fluid increase, we may then endeavour to encourage it by the application of poultices; and, when sufficiently forward and near the surface of the skin, the fluid should be let out by means of a valvular puncture; and after the fluid has been evacuated the opening should be closed by means of adhesive plaster, and it may be necessary to allow a fresh collection of fluid to escape. Should the collection of pus break before we are called to the patient, our attention should be directed to keep the aperture freely open, and to apply gentle but appropriate pressure in such a manner that no further collection shall occur at any other part. The joint should be kept perfectly free from all kind of motion, and the constitution of the patient supported so as to keep up the strength as well as we are able. Hectic fever but too frequently accompanies this stage of the complaint, particularly at an advanced period of the disease. Dover's powder, opium, morphine, &c., may be usefully given in the adult.

The Ulcerative Stage, and Caries of the Bones.—Absorption takes place of the membrane covering the articulating surfaces to a smaller or greater extent, according to the virulence of the attack, producing an ulceration of the part, which soon extends deeper until the bones themselves become in a state of caries or ulceration; the consequence of which is frequently consequitive dislocation, and the destruction of some of the parts that enter into the formation of the joint, and not unfrequently the whole of the joint is involved in the ulcerative disease.

The ulcerative stage may be treated by counter-irritation and constant rest, for the least motion in the parts keeps up a degree of irritation which tends to favour the disease. If the ulceration be extensive, the most favourable termination will be in anchylosis. In some cases that have fallen under my care, keeping the patient in the prone position has been extremely serviceable: it enabled us to make applications to the hip itself without moving the joint in the slightest manner, and serves to keep the pressure from the acetabulum.

Caries has always been a most difficult and tedious disease to cure, and its progress is frequently continued over an extended period. I must here digress a little from my present subject, and enter briefly into the consideration of caries of the bones in general, for the purpose of pointing out a new medicinal agent for the treatment of this disease. Many cases of caries have fallen under my notice, affecting in different cases almost the whole of the bones of the body. Caries of the spine, pelvis, bones of the inferior extremity, superior extremity, head, and face, have frequently been under my care. Various remedies and different applications have been employed, it is only within the last few years, however, that I have been able to find a medicinal agent to produce a permanent and beneficial effect upon caries of the bones; I am able now to state that I have been successful in this respect, owing to the researches of Liebig in the furtherance of organic chemistry, and the progress made in our knowledge of the formation of several parts of the human frame. The close identity and chemical composition of several parts of the animal body, according to the best authorities we are able to consult, clearly point out that dried blood, dried flesh, and other parts of the animal textures correspond very closely in their chemical composition with proteine, or that chemical basis which is essential to the formation of the various parts of the human frame, and which enters into the composition of the structure of every part combined with other elements. If we examine the chemical formulæ of some of the parts entering into the structure of the body, and we will take chondrine (the substance of the cartilages of the ribs), the composition shows that, when proteine passes into chondrine, the elements of water with oxygen have been added to it, while, in the formation of serous membranes, nitrogen also has entered into combination. Thus, then, proteine combined with water and oxygen form the cartilage of the ribs, and no doubt the cartilages in general, whilst a combination of nitrogen forms the serous membranes. Some of the other structures are composed by other combinations of the elements of proteine combined with sulphur and phosphorus, whilst other parts of the human frame are combinations of proteine with certain salts or acids; but still in every structure proteine more or less abounds. The frame is formed from the blood, that is, the chemical compounds of proteine in the blood, during the different stages of our existence in infancy, youth, puberty, and old age; through these several periods of our life the circulation of the blood forms the various and minute structures which constitute our entire body. It is essential that the blood should be furnished with the elements so requisite for the formation of the several parts, and more particularly so when a disease exists, because it is requisite to establish a healthy action and restore parts that have become in a state of morbid activity.

The knowledge that proteine chemically formed various structures of the frame, and the supposition that the want of this chemical basis might encourage the development of diseased structure, and, in a measure, prevent the restoration of certain parts, led me to employ it as a medical agent, and carefully to watch its effect upon the system. I prescribed it in cases of cancer without any visible beneficial result. I next gave it in extensive ulcers with the utmost success—in cases of large sloughing ulcers of the legs. The ulcers soon became healthy and quickly healed, the patients speedily recovering health and strength. I then watched its effect in scrofula, and found a cure accomplished in many cases. A boy was admitted under my care at Middlesex Hospital with extensive caries of the metatarsal bones; it was considered necessary upon consultation to remove the bones by amputation; but, as the patient had enlarged glands of the throat, it was deemed advisable to improve his general health previously to the operation, and for this purpose I prescribed ten grains of proteine twice a day. In the course of two months the caries of the bones, for which amputation was considered necessary, was completely cured, and solely by the administration of proteine, as the disease had resisted the action of all other means which had been employed for a considerable time previously. A youth was admitted with caries of the tibia and bones of the foot; it was considered by the surgeon who sent him into the hospital that he must lose his leg; proteine was prescribed, and he was discharged cured. Thus, then, from carefully watching the effect of this remedy I was able to discover a very beneficial agent for the relief of one of those diseases of the bones which few remedies accomplish; and, from repeatedly observing the result of the exhibition of proteine in public as well as private practice, I entertain a very favourable opinion of it, as I have seen it successfully administered in very many cases that have fallen under my notice. Difficult cases of caries of the spine have been under my treatment, and have been cured by the exhibition of proteine.

Numerous other cases of caries have been successfully treated by the same remedy. Two cases of failure in the effect of this medecine have fallen under my notice. The one a man with caries of the bones of the knee-joint of long standing, with no constitutional derangement; all the means employed failed to produce anchylosis, and the administration of proteine produced no effect. The other case, a lady with extensive caries of the bones of the hip-joint of twenty-five years' standing; this patient took proteine for some time with a beneficial effect, but it failed to produce a cure. I have prescribed it extensively with very beneficial results, and can recommend it as a medicinal agent and one calculated to produce a favourable termination in most cases of caries; also in some cases of scrofula, extensive ulcers, debility, diseases of the gums and teeth, rickets, undue lactation, and insufficient secretion of milk. In infancy, where debility exists, and where the functions are not duly carried on, and in some affections of the spine, five grains once or twice a day will be sufficient for a child, and ten or twelve grains for an adult; and I have ordered it to be taken as a powder, dry or upon bread and butter.(a)

In a case of disease of the hip-joint under my

(a) Prepared by Mr. Garden, operative chemist, Oxford-street.

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care, where the bones had become in a state of caries, and when the bowels were so torpid that they required the most active and brisk aperient medicine to produce any beneficial results, the exhibition of proteine was most successful, not only in relieving the hip, but also in restoring the natural action of the alimentary canal; for, after a few doses, a healthy and natural action of the intestines was the result, and this patient, up to the time of his quitting London, required no further aperient medicine. I could bring forward numerous cases of the efficacy of proteine, but I trust sufficient has been said upon this subject. In one or two instances I must mention that I have found its effect rather inflammatory, and, should this result, it ought to be discontinued, active aperients administered, and such other remedies as the case may require. I have tested its tonic qualities by administering it instead of quinine, wine, or beer, not in a solitary instance, but on several occasions; and where Nature has to restore the loss of any part, caused by extensive sloughing of the soft structure, I have found by its exhibition that the cases have rapidly improved and terminated favourably in a much shorter period than under the administration of other remedies.

The use of crutches in cases of disease of the hip is, in my opinion, prejudicial to the patient in many instances, for in youth many cases have presented themselves where their aid has been continued for a long period, and where the greatest difficulty has been experienced in the attempt to discontinue them. The muscles of the affected limb, by disuse, becoming weak and attenuated, and the whole extremity losing strength, by which means its growth is frequently not in the same proportion as the other parts of the body, so that, when the patient ultimately attempts to use the leg, it is found considerably shorter than the other, from this cause. It is in my mind a mistaken notion, that by the aid of crutches the patient is enabled to take exercise which is beneficial to health. The same result as regards the health of a patient will be produced without the aid of the crutches, and with the use, strength, and assistance of the affected leg, by a little extension of time, with good management, and the proper employment of such means as the case may require. It is difficult to point out what means may be requisite for every case, but I will here give the particulars of one that was under my treatment. A young gentleman, between four and five years of age, had suffered from disease of the hip for eighteen months; he had been under treatment, but not carefully watched; consequitive dislocation had taken place, and a splint of leather had been made to keep the joint free from motion. The boy had been allowed to be in the nursery with the other children, and had got into the habit of moving along the floor with the aid of his hands in a sitting position. The thigh of the affected limb was crossed over the other thigh and advanced forward across the chest, so that, when I first examined him and placed him upon the sound leg, the thigh of the affected member was above the umbilicus; but I found that anchylosis had not taken place, which was fortunate. My attention was directed to straightening the thigh, which was not unattended with difficulty, and I had recourse to various means and contrivances for this purpose, but at last succeeded. My next attention was directed to place the child upon his legs, but not by the use of crutches: I placed him upon his feet by contriving a species of go-cart, by which means he was enabled to move to all parts of the nursery, and play. When he had acquired sufficient strength in his legs, and was able to bear a little walking upon the affected limb, I allowed him to move by the aid of sticks about the room, and he gained great strength and some agility; but had I continued this plan I should have found that curvature of the spine would soon have resulted from the leg being shorter than the other. Nature was endeavouring to counteract this inconvenience by causing the pelvis to be placed in an oblique position, to obviate the shortening of the leg by a curvature of the spine. This was counteracted by having a boot made of a light material, so that both legs were of the same length; this answered admirably, and the little patient was enabled to walk with some facility, and soon gained strength; but we had a variety of difficulties to encounter which would be too tedious to detail. No fixed plan could in this or even in other cases be pointed out for the treatment of diseases of the hip, but they must necessarily depend upon the nature of the affection and upon the symptoms that present themselves to the practitioner, and also upon the position of the limb and upon other circumstances which require to be carefully investigated. Considerable benefit may result in very many cases for the relief of those who suffer from this affection, by scientific, mechanical, and other means.

Patients suffering under other complaints will frequently complain of acute pain in the hip, and point out its situation to a spot between the great trochanter and tuber ischii; but upon close investigation we are able to trace it, not to any inflammation or other disease in the hip-joint, but sometimes to sciatica, or to uterine derangement or affection. Some few cases of hysterical affection of the hip have fallen under my notice, and have required the greatest care in their treatment, and some judgment to determine their nature; but by giving such remedies as may restore a due functional performance of the uterine organ, with a free use of the shower-bath every morning, patients have been rendered convalescent.

15, Harley-st., Cavendish-square, April, 1848.

PROGRESS OF MEDICAL SCIENCE.

Concours for the Chair of Clinical Surgery.

GRANULATIONS, ULCERS, AND CANCER OF THE OS UTERI, A THESIS. BY DR. ROBERT.

In the first pages consecrated to anatomical description, we find a repetition of what is generally admitted on this subject, and some important remarks on the distribution of lymphatics and nerves. The lymphatics of the uterus communicate with the pelvic ganglions; but certain well-observed anomalies explain those uncommon cases in which inguinal tumefactions have resulted from maladies of the os uteri. In a preparation deposited at the museum of the Faculty by M. Aubry, the lymphatics of the cervix are seen to communicate with those of the anterior part of the vagina which terminate in the glands of the groin. This communication may also take place within the pelvis, as in a case seen by M. Robert, in which the lymphatics of the cancerous cervix ran through a series of enlarged glands from the womb to the inguinal region. With regard to the nerves of the cervix, M. Robert adheres to the opinion of M. Jobert and of M. Longet, who consider them as exclusively belonging to the ganglionic system. M. Jobert does not admit the existence of the plexus described by Mr. Robert Lee as around the cervix—a fact which the constant absence of pain, even when that part is touched with the actual cautery, seems to disprove.

Ulcerations.—M. Robert divides ulcerous affections of the cervix into two classes, viz., those produced by simple inflammation, and those resulting from specific causes. The various aspects of simple ulcerations depend upon the modifications occasioned by inflammation in the diseased textures, and not upon any diversity of nature of the anatomical elements by which they are constituted. In superficial ulcers the uterine tissue is not altered; it is always congested in ancient ulcerations. These inflammatory erosions may be divided into four classes—excoriations, granular ulcerations, fungous ulcers, and callous ulcerations. The discharges which they occasion may become accidentally contagious under the influence of excitement, the approach of menstruation, &c.; but, on the one hand, they are rendered innocuous by long duration, and on the other, by habit. The author recognises five sorts of specific ulcers of the os uteri, viz., herpetic, scorbutic, scrofulous, diphteritic, and syphilitic. Four cases of scrofulous ulcer consequent upon the softening of tubercular matter deposited in the uterine tissue are brought forward: and in the history of syphilitic sores we find only the description of the primary chancre of the cervix; tertiary syphilis also produces special but not inoculable sores of the os uteri—a circumstance which M. Robert does not mention, but which is illustrated in a case which the author refers to scorbutic ulcerations. After a rapid description of the symptoms of ulcerations of the cervix, such as the discharge, pain, menstrual disturbance, M. Robert examines their influence upon the progress of pregnancy, and asserts that they interfere with gestation only when they are accompanied by inflammatory tumefaction.

With regard to the treatment of simple ulcerations, M. Robert is no advocate of the warm bath, and still less of warm hip-baths. Cold-water, or cold mineral-water, affusions are, on the contrary, advantageous. Blisters in the inguinal regions and upon the hypogastrium are preferable, in M. Robert's opinion, to the application of revulsives to the back. The application of leeches to the cervix is often most beneficial, and should not be neglected when the cervix is swollen and tender; irrigations and injections of various natures, according to the state of excitement or of relaxation of the parts, should also be prescribed. Intra-uterine injections have been in many instances performed by M. Robert, but he did not derive from them any advantage; indeed, in several of the cases published in this thesis, accidents of an alarming nature were observed, which would deter the practitioner from again having recourse to this dangerous method. As to caustics, nitrate of silver appears sufficient in superficial ulcers, unattended with any tumefaction, and the actual cautery should be preferred to any other in fungous or callous ulcers. Excision of the cervix should not be attempted in any case of ulceration which is not of a cancerous nature.

Cancerous Affections of the Cervix Uteri.—Modern researches, due to Gluge, Lebert, Mandl, &c., show that if certain maladies really do present all the microscopic and pathological characters of cancer, such as peculiarly formed cells, a tendency to spread and to cause diathesis, others may be accompanied with the symptoms in appearance the most alarming—induration, lancinating pain, tendency to spread; but differ essentially from the former by the absence of the special cancerous globule, and the production of diathesis. Hence a division of this portion of the subject in two distinct sections—one dedicated to cancroid affections, the other to true cancer.

The cancroid affections present themselves in the shape of ulcers or of tumours. The former, or corroding ulcer, described by Clarke in 1821, begins on the surface of the os tincæ; the subjacent tissues gradually disappear without having degenerated; the fundus is extremely vascular—a circumstance which accounts for the production of frequent and abundant hemorrhage. Cancroid tumours assume three forms—epithelial, sarcomatous, and erectile. Epithelial productions may be encysted, and contain fragments of tessellated epithelium, the globules of which present distinct nuclei: their consistency depends altogether upon their vascularity, and ulceration may be their consequence. Fibroplastic or sarcomatous growths have been well described by Abernethy, who considered them as forming a distinct class.

With regard to cancer, M. Robert does not admit that the disease can show itself in a primary manner in the shape of an ulcer. Tumours present themselves in five distinct primary forms:—In the first place, several small circumscribed indurations, variable in size between that of a pea and of a hazel-nut. 2. One considerable tumefaction occupying one lip of the os tincæ, soft at its surface only, and destroying considerably the cervix. 3. A hard swelling of

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the entire cervix. 4. A swelling of the entire organ, but of soft consistency. 5. Vegetating cancer.—The first and third varieties belong to scirrhus; the second, to cerebriform cancer; and the fourth, to fungus hematodes.

Speaking of the influence of cancer of the os uteri upon parturition, M. Robert extracts the following statistics from M. Puckelt's memoir on this subject:—Of 27 women, whose cases were observed by that author, 5 died during parturition, and 9 very shortly after expulsion of the child; 10 seemed restored to their original condition, and of 8 cases no further mention is made: as to the children, 15 were still-born, 10 lived; the condition of the remaining 2 is not stated.

The existence of a cancer at the cervix uteri constitutes an obstacle to the dilatation of the orifice, and, besides, may, by its volume, form a physical impediment to the passage of the fœtus. When one only of the lips is occupied by the cancerous alteration, the part of the cervix which has preserved its healthy characters may permit sufficient dilatation, without laceration of the diseased portions. Passing on to the treatment of cancers, the author concludes with the description of the operation recommended by by Lisfranc for the removal of the cervix—an operation on which, however, he reposes only slender hopes, on account of the extreme frequency of relapse.

D. M'Carthy, D.M.P.

CUMBERLAND INFIRMARY, CARLISLE.

Communicated by E. THOMAS, Esq., House-Surgeon.

INTERESTING CASE OF ACUTE GLANDERS IN A MAN; DEATH; DISSEMINATED ABSCESSES IN VARIOUS PARTS OF THE BODY.

Richard S., forty-one years of age, a single man, by trade a tailor, admitted March 18, under the care of Dr. Lonsdale.

His sister, with whom he lived, said that he was quite well until nearly three weeks ago, when, on account of being out of employment, he was engaged by a horse-dealer to take the charge of some horses to a country fair. He was out for two or three days in the beginning of the month, and during that time the weather was remarkably rainy, and he was often wet to the skin. He rode home and immediately went to bed, and has never since been a moment well. He complained of pain in his back, shoulders, elbows, knees, and ankles, also of frequent fits of rigors; he has taken no physic, except some salts and senna, which purged him freely; he was able to get out of bed and to walk with a little assistance to the fireside until yesterday, when, finding himself much worse, a surgeon saw him and opened a vein in the right arm; his left arm at the time was so stiff that he could neither flex nor extend it.

March 18. Admitted in the following condition:—He was able with assistance to walk a short distance into his ward; he complained, just as he did yesterday, of pain in nearly all the joints, especially the elbows and ankles: both are slightly swollen, and the feet are œdematous; he was very thirsty, and perspiring very profusely; there were a few small pustules on the right side of the face and the right thigh. He was treated as for rheumatism.

19. Thought himself somewhat better than yesterday.

20. Has had severe purging, attributed to a pill of one grain of extract of colchicum. To take chalk mixture and milk diet.

21. He was slightly delirious in the night; his tongue is dry, and he is very thirsty; his pulse is quick and feeble; the left eyelid is œdematous, and there is an erysipelatous blush about the temporal and orbital regions; complains of much pain in the limbs whenever they are in the least degree moved.

22. Has had a very restless night, repeatedly making attempts to get out of bed; is bathed in sweat, which has a disagreeable smell; is extremely thirsty, and has much difficulty in swallowing.

23. Has had another very restless night; the pustules are now very numerous; those on the face, head, and neck are surrounded with a dusky ring; a profuse discharge from the left nostril was observed early this morning; the left eye cannot be exposed on account of the œdematous state of the eyelid, and beneath it there appears to be a tenacious layer of mucus; he moans loudly whenever the limbs are in any degree shifted; there are no enlarged glands in the axilla, nor red streaks in the course of the absorbents; he whines, speaks incoherently, and in a whisper when questioned; passes his evacuations unconsciously in bed.

24. He lies in a comatose state; there is still profuse discharge from the left nostril; there are several large bullæ and pustules on both arms; the pustules on the chest are symmetrically arranged; there are none on the abdomen; there is one large pustule on the glans penis; the scrotum is œdematous and swollen; the pustules on the lower extremities are arranged with more symmetry than those on the upper. He died at ten A.M., twenty days after the date of the first tokens of any disease.

Examination of the Body Twelve Hours afterwards.—The bullæ and pustules are pretty equally arranged over the body; when cut into they appear to be a little better than skin deep, and the surrounding adipose tissue looks quite healthy; the parotid, submaxillary, and sublingual glands on both sides were healthy; there was much serum effused into the surrounding cellular tissue in the vicinity of these glands and under the platysma; the scalp was thickly studded with pustules, and about half an inch in thickness; there were numerous vascular patches on the pericranium, corresponding precisely to the large bullæ on the integument; the brain and its membranes were quite healthy; the left eyeball was examined from the skull by breaking up the orbital plate of the frontal bone; it and the contents of the orbit were quite healthy; there was a large deposit at the outer angle of the orbit, in consistence and in colour not unlike inspissated pus, or softened tubercle; deposits of the same character and of various sizes were found in great number in the muscles of the neck, especially the superficial layers, the deltoid and pectoral muscles, and those of the arms, thighs, and legs; there was also a great quantity deposited amongst the flexors of the right forearm and left upper arm, but no deposit in any of the joints; there was a similar collection of matter on the inner side of the right ankle, burrowing a good way up the leg amongst the flexors of the foot; the joint was healthy; there was a large patch of the mucous membrane of the left tonsil, and of the same side of the pharynx, deeply ulcerated; the mucous membrane of the epiglottis and larynx was also ulcerated, and in the trachea there were numerous white vesicles; the bronchial tubes were clogged up with viscid mucus, and in the root of the right lung there were several oval-shaped deposits about the size of musket-shot; the rest of the lung was healthy; the heart was healthy, its right cavities filled with firm coagula, and the left cavities contracted and empty; the mucous membrane of the stomach and intestines was healthy, as well as the mesenteric glands; the Schneiderian membrane was not examined for fear of disfiguring the face; the periosteum in the upper and lower extremities was examined, and found healthy; the liver, spleen, kidneys, supra-renal capsules, and bladder healthy.

The foregoing history clearly indicates that the patient's illness was acute glanders. A question naturally arises, how was the invasion brought about?—was the morbid poison spontaneously generated in the blood, or was it communicated from the horses under his care? The latter supposition seems the most probable mode of transmission, though unfortunately we have not been able to arrive at positive data concerning this; all we know is, that, during his absence from home, he had led a very dissipated kind of life, and was very intemperate in his habits. It is not at all unlikely but that he was badly housed, perhaps sleeping upon filthy litter in a shed or a stable. We carefully examined the face and hands for any abrasions, and especially those fingers most requisite for tailoring, but could find no marks of inoculation. The unequivocal character of the symptoms, the puriform discharge from the nostril, almost pathognomonic of glanders, left no doubt as to the nature of the disease. A natural repugnance to meddle needlessly with the morbid element deterred us from subjecting animals to its operation, especially as the transmissibility of the disease from horse to man has been fully established.

WESTMINSTER HOSPITAL.

Reported by HENRY BUTLER, Esq., M.R.C.S., House-Surgeon.

CASE 1.—RETENTION OF URINE CONSEQUENT UPON OLD NEGLECTED STRICTURE OF THE URETHRA, WITH ENLARGEMENT OF THE PROSTATE.

Frederick Symons, a porter, aged sixty, was admitted into Northumberland Ward, under the care of Mr. Phillips, Jan. 4. He was suffering from retention of urine.

He states that he has been suffering for twenty years from a stricture of the urethra, which has occasioned, several times, attacks of retention of urine. He has never been under a regular course of treatment till within three years of the present time, when he was a patient of this hospital, and was discharged completely relieved, No. 9 catheter being passed without any difficulty. For the two succeeding years he neglected to attend at the hospital as he was directed, and the stricture relapsed into its previous condition.

When he presented himself, though the bladder was distended, the symptoms were not very urgent. Attempts were made to relieve him by passing a catheter; but most severe and persistent spasms induced us to desist until the present excitement subsided. He was ordered to have a hot bath, warm fomentations to the pubes and hypogastrium, and to take ol. ricini, ℥ss.; tr. opii, m. xl.

Jan. 5. He has passed a very restless night, and has an anxious expression. No urine was passed during the night; the desire to micturate is most pressing; the bladder is much distended, forming a tumour reaching nearly to the umbilicus; it is clearly defined on the abdomen, and feels very tense. The stricture is nearly impassable from the violence of the spasms; the prostate is enlarged; the skin dry and cold; tongue brown; urinous odour from surface, and great prostration. A catgut bougie of the smallest diameter was passed, at Mr. Phillips' suggestion, into the bladder without any difficulty, and retained there, and he was directed to try and pass his water by the side of it. In the course of six hours three pints of urine had dribbled out by the side of the bougie, relieving the patient entirely from the distress. At 10 P.M. the catgut bougie was removed, and replaced by an elastic gum catheter (No. 2.), which was passed without any great degree of opposition, and the rest of the urine evacuated. It was remarkably ammoniacal, and a large proportion of mucus, thick and tenacious like birdlime, preceded the flow of urine.

6. He obtained a good night's rest, and the bowels were unloaded with castor oil. The peg was taken out occasionally from the catheter, and the urine allowed to flow. He is comfortable, but suffering from a little collapse. Pulse 90, weak. Brandy ℥ss. every four hours.

7. He is still improving; the skin is cool and moist; there is a little soreness of the urethra; some pus on the catheter on its removal; the urine is losing the ammoniacal odour, and does not contain so much mucus; there is a little diarrhœa and tenesmus; the catheter was now removed, and only introduced morning and evening. To take ol. ricini, ℥ss.; Tr. opii, ℥ ss., statim.

8. The diarrhœa and tenesmus have ceased on the removal of the catheter. He has passed

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some urine, but in a small stream, and micturition gives rise to great pain and scalding. The urethra was very sore on passing the catheter.

From this date he progressed towards recovery without any untoward symptom, regaining his power rather slowly; but he improved daily, and the calibre of the catheter was regularly increased. It was necessary to use a prostate catheter, of small calibre, on account of the enlargement of the prostate coincident with stricture of the canal.

By the end of the month the man was perfectly convalescent, and a prostate catheter (No. 9) was passed with the greatest facility.

Case 2.—C. F., aged forty-nine, a porter, was admitted into the Westminster Hospital in a state of collapse following retention of urine. He states that he has been the subject of stricture for twelve or thirteen years, and occasionally suffered from partial retention, but, on the bladder becoming much distended, the urine has dribbled away, relieving him from any great amount of distress. His occupation frequently obliged him to retain his urine for many hours, and on one of these occasions he fell down, and was much shaken by the fall. A small cut on the forehead was the only perceptible injury.

On his arrival at home he found himself unable to pass any urine, though his efforts were very energetic, and the desire to void his urine was incessant. A medical man was called in, and, after the warm bath, opiates, &c., had been administered, a catheter was passed into the bladder, and it was emptied. Four pints of urine passed through the catheter; the catheter was retained for some hours, and then removed; but the bladder did not regain its power. The man became very low, and recourse was again had to catheterism.

On the fifth day after the first seizure the man was admitted into the Westminster Hospital in a condition of great prostration. The bladder had not acted for six or seven hours. A stricture was found anterior to the prostatic portion of urethra, and, on examination per rectum, the prostate itself was much enlarged.

A silver catheter (No. 1) with a large curve was introduced, and about ℥vj. of very ammoniacal urine flowed out. Brandy, hot beef-tea, and ammonia were administered, but the powers of life were not increased. Jactitation of the muscles, and a condition closely resembling the last stage of delirium tremens, rapidly supervened, and the man gradually sunk ten hours after admission.

Autopsy Twenty Hours after Death.—A fine, well-made muscular man. The subcutaneous tissue was loaded with fat; on making a section into the abdomen, a large quantity of serous, straw-coloured fluid escaped; the viscera were generally healthy, with the exception of the bladder and kidneys; the kidneys were both enlarged, the right kidney weighing seven ounces, the left seven ounces and a half: they were generally much congested, and the pelvis of both were enlarged; the calibre of the ureters was not perceptibly increased; the bladder was contracted and contained no urine, its muscular coat was much hypertrophied, and the mucous membrane corrugated; there were some patches of inflammatory redness; the prostate was much enlarged, especially the middle lobe, which formed a triangular elevation in the urethra; about a quarter of an inch anterior to the verumontanum the canal was much constricted.

The circumstances of these two cases support the opinion given by Sir B. Brodie, in his work on "Urinary Diseases," in which he points out the evil consequences likely to occur from the shock on the nervous system induced by evacuating at once the contents of the bladder, when much distended by the retention of urine. In the first case the evacuation was very gradual, the urine having been six hours in dribbling away by the side of the bougie.

Dr. Miller has been appointed by the Queen successor to Dr. Syme in the Chair of Clinical Surgery to the University of Edinburgh.

REVIEWS.

Practical Observations on Midwifery, and the Diseases incident to the Puerperal State. By Alfred H. M'Clintock, M.D., F.R.C.S.I., &c.; and S. L. Hardy, M.D., F.R.C.S.I., &c. Dublin: Hodges and Smith, Grafton-street. Pp. 368. 1848.

The Dublin Lying-in Hospital is an institution which affords ample means for practical instructions in midwifery; and the late master, Dr. C. Johnson, during the time of his governorship, permitted his assistants to publish the records of the hospital during the time they were connected with it. It is to the credit of our authors that they did not permit so excellent an opportunity to pass unimproved, and the result of their labours is the book now before us.

The report embraces a period of three years, from Jan. 1, 1842, to Jan. 1, 1845; during which time 6634 women were delivered of 6702 children; 2125 of them were primiparæ. The deaths amounted to 65, giving an average of 1 in 102; 35 of them were primiparæ. Taking from these eleven whose deaths occurred from diseases not strictly puerperal, and four who were found to be in a dying state on admission, and the average of deaths will be about 1 in 132. From the records kept in the hospital of the number of children each patient had, and their sex, we find it was 20,680, exclusive of abortions; and of these 11,032 were boys, and 9648 were girls. The total number of males born in the hospital during the three years was 8551, of whom 198 were born dead and 62 putrid. The number of female infants amounted to 3161, of whom 127 were born dead and 60 putrid. Of the whole number 108 were premature—52 boys, of whom 9 were born dead and 15 putrid; 56 girls, of whom 9 were born dead and 22 putrid. Of the 108 premature births, 17 presented with the breech, 12 presented footling, and 9 with the arm; in all 38, being nearly 1 in 3; whereas, at the full period, the frequency of preternatural presentation is only about 1 in 30.

To constitute natural labour, the three conditions given by Denman are considered necessary—that the head present, that the labour be terminated within twenty-four hours, and that delivery be completed without any artificial assistance. At the commencement of this section some excellent observations are made respecting the use of the binder, which we quote: "When exactness is required, it may be well to have the binder made by measure, taking for its width the distance between the true ribs and the trochanter, and for its length the circumference of the hips, with the addition of a few inches to allow for overlapping. In applying it, the degree of tightness ought to be moderate and uniform throughout, so as to exert an equable pressure on the abdomen, from the epigastrium to the pubes. When put on in this manner the binder is not only a source of comfort to the patient, but proves positively beneficial, by compressing the uterus, thereby lessening any disposition to relaxation; and by preventing that feeling of debility and faintness (occasioned by the sudden evacuation of the uterus) which always tends to diminish the activity of uterine contractions. It is not to be inferred from this, however, that the binder should be used as a substitute for the pressure of the hand in cases of extreme inertia: by no means; but its presence does not much interfere with our grasping the uterus, and, if it should do so, the hand may readily be passed underneath, and our object be thus obtained."

The support of the perineum is not to be given too soon, as officious interference is apt to produce inflammation; the period recommended being that when the increasing thinness of the part, and the extreme tension of the *fourchette*, indicate the delivery near at hand.

After-pains do not often require much interference, but, should it be necessary to allay them, two or three grains of calomel, with ten grains of Dover's powder, or a full anodyne, may be given at bedtime; and on the following morning three drachms of castor oil, with the same quantity of spirits of turpentine. If the pains are troublesome in the daytime a turpentine fomentation is recommended as a means of procuring relief and of arresting any tendency to inflammatory action.

When there is a disposition to sore nipples, the application of the child to the breast is delayed in the hospital till there is a full secretion of milk. The distended and painful state of the breast then resulting from the first secretion of milk is to be relieved by friction with vaseline; and, if there should be any febrile excitement, repeated doses of tartar emetic are given, and the bowels freely opened. If the tutoring should not remove the tense and hard state of the breasts, benefit is derived from enveloping them with a piece of soft linen, on which is spread a cerate composed of wax and olive oil melted together, and in the centre a hole is cut for the nipple. Of the remedies for sore nipples used at the hospital, tincture of catechu has been found an excellent astringent, but even that is only exceptionable. A solution of pure borax is also recommended, or a lotion composed of subborate of soda, purified chalk, spirituous vine, and rose water, alternated with an emulsion in which Peruvian balsam, honey, white wax, and oil of almonds are the ingredients. We have found in cases of sore nipples a lotion composed of a weak solution of nitrate of silver, a most excellent application. The parts are bathed with it for two or three minutes, and afterwards dilute citrine ointment applied.

In mammary abscess, when suppuration seems inevitable, the plan of treatment adopted was to keep the part constantly poulticed till the matter approached very near the surface, and then to use the lancet. The opening was always made freely, and as near the outside of the areola as possible, so as to prevent retraction of the nipple. After some days, when the ordinary inflammatory action has subsided, warm spirit dressings, one pint of spirit to six or eight of water, are applied, which promote the healing of the part by causing the abscess to contract, and by removing that relaxed condition which poulticing produces in the granulations and adjacent integuments. Afterwards the breast is strapped with adhesive plaster in the same way as is practised in hernia humoralis. The section on natural labour is concluded with cases illustrative of uterine phlebitis, puerperal mania, and phlegmasia dolens, &c. In reference to the former disease, the authors remark that they do not recollect having ever seen an example coming on in the second week after delivery, when the patient has passed through the first seven days without any unfavourable symptom.

In reference to *tedious labour*, it is remarked that, when the first stage was unusually prolonged, the cause was a rigid, unyielding condition of the os uteri. The cases occurred exclusively among primiparæ, and more commonly among those in whom the membranes had ruptured at an early period of the labour. Where the os uteri was rigid and undilatable, tartarized antimony, venesection, and the warm bath were employed, taking care, in the first instance, to have the bowels freely opened. Delay in the second stage was found to have, in general, produced uterine inertia, or a disproportion between the fœtal head and the pelvis, or these two causes combined. In cases of uterine inertia the ergot of rye was administered in the following manner:—"Half a drachm of fresh powder was infused in half a small cup full of boiling water for ten or fifteen minutes, when it was strained; to the strained infusion were added ten or fifteen grains more of the powder, with some sugar (to make it palatable); this constituted the ordinary dose, and it was repeated in about twenty-five minutes, if thought requisite: a third dose was rarely given." If the ergot acts at all, it was found to do so within fifteen minutes after its administration. It was also remarked that, when given at an advanced period of dilatation, and when the pains had nearly ceased, and the discharge had become fetid and olive-coloured, the drug rarely exercised the desired influence.

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The ergot was observed to exercise on various occasions a depressing influence on the maternal circulation, lowering the pulse twenty or thirty beats in a minute; and in some instances the effect lasted for two or three days.

The value of the stethoscope in enabling to determine upon the choice of instrument was found to be very great. Its use in diagnosis, however, is dependent entirely upon the results of comparative observation, and not on any solitary use of it in a difficult case.

The vectis was frequently substituted for the forceps in instrumental delivery. The time and manner of its use were in strict accordance with the directions of Denman; but in further steps of the operation it was used more as an extractor than a lever. The short straight forceps were exclusively used; and the conditions considered indispensable to render them applicable were, that the child should be alive; that the head should have remained stationary, within reach of the forceps, for six hours at least; that the membranes be ruptured, and the os uteri fully dilated; that the head of the child be so circumstanced that the ear can be distinctly felt without the use of force; that the soft parts be without signs of inflammation. The authors make the following excellent propositions when treating of difficult parturition:—1. That, in the vast majority of instances, the death of the fœtus during the progress of a tedious labour can be positively ascertained by the aid of the stethoscope. 2. That, of all the perforations for difficult labour, the number of cases in which we were not fully assured of the child's death before undertaking the operation does not altogether exceed three per cent.; but, after it was found that the child had perished in the course of a laborious labour, it was not the practice of the hospital to wait for the full development of bad symptoms before using instruments, as nothing could have been thereby gained, and the patient's life might have been compromised by such culpable procrastination.

The total number of tedious and difficult labours amounted to 259. Of these 173 were delivered without instruments. Of this number 30 took ergot to overcome inertia in the second stage of labour, and only 20 out of 30 children were born alive. In 52 instances delivery was effected by the perforator and crotchet, in 18 by the forceps, and in 16 by the vectis or lever. In 88 cases the principal delay was in the first stage; in 119 in the second stage; and in 52 cases both stages were protracted. Twenty-two women died out of 259, and 19 of these cases were primiparæ. Of the children 154 were boys, of whom 83 were born alive; 105 were girls, of whom 56 were born alive.

Of preternatural presentations, no cases were seen but those of the upper and lower extremities. It was sometimes found in breech presentations that, during the first and early part of the second stage, the presenting part was the anterior superior spine of the ileum, and not the nates, as is usually the case. A good deal of perplexity the authors have known to occur from the examiner not having been prepared for such an occurrence, and the presentation has even been mistaken for the upper extremity. In one third of the breech and footling cases, the child entered the pelvis with the face looking towards the mother's abdomen; yet in no instance was it delivered face to the pubis, and in very few was it requisite to give any assistance. The total number of preternatural presentations amounted to 227, 101 of which were breech, exclusive of twin cases. Of the 101 children who presented with the breech, 37 were born dead, 21 of which were putrid; 24 were premature, 18 of which were stillborn, and 13 putrid. Of the six premature children born alive, one went the sixth month, three at the seventh, and two at the eighth month. Two of the living premature children were boys, and four girls. Nine of the premature stillborn children were males. Of the entire number of dead-born children, 23 were males, 64 children were born alive, of which 34 were boys. Of the 101 breech cases, 58 were males, and 43 females. Three of the mothers died.

There were 38 footling cases, exclusive of the twins, which presented with the feet, and which were 23 in number. Of the 38 children, 18 were dead-born, and 13 putrid; 14 of the 38 were premature, of which 1 was born alive, 2 dead, and 11 putrid; 6 of the premature children were boys. Of the 20 living children, 6 were boys; and of the entire number, 13 were boys, and 25 girls. One woman died.

There were 28 presentations of the shoulder or arm, including twin children, which were six in number. In 19 cases version was performed, and 14 of the children born alive. In four cases delivery was effected by evisceration. Of the 26 children, 12 were dead-born, 6 putrid, and 8 premature; 13 were males, and the same number females. In three cases the shoulder was low in the pelvis when the patient was admitted. Two women died.

Under the section of complex labours we have treated of, hemorrhage, convulsions, ruptures of the uterus, plurality of children, and funis presentations. In cases of accidental hemorrhage, which has occurred without any assignable external injury or shock of any kind, positive diagnosis has been made by the use of the stethoscope, ascertaining (as Negèlé noticed) through its means the site of the placenta. In hemorrhage and partial presentation of the placenta, when the membranes could be felt at the os, they were ruptured when the discharge was great and could not be controlled by ordinary means. If this did not produce uterine contraction sufficient to restrain the hemorrhage, friction over the uterus, stimulating enemata, and ergot of rye were employed; the latter was not used when there were symptoms of depression of the vital energies. The general rule of practice in placenta prævia was to introduce the hand and deliver by turning; this proceeding being restricted to those cases where there was a complete or nearly complete implantation of the placenta over the os, or where rupturing the membranes proved ineffectual in arresting the hemorrhage. Plugging the vagina was only resorted to where the entire os was covered by the placenta, and whilst it was in such a state as to obstruct the entrance of the hand. For plugging, a soft silk pocket handkerchief was used, first dipped in sweet oil, and then one corner of it was carried up to the os uteri by the fingers of the right hand; the remainder was then slowly and regularly introduced in such a manner as to fill the upper part of the vagina first. The plug was not allowed to remain longer than twenty-four hours. Opium is spoken highly of, under certain circumstances, in checking hemorrhage, but its power of checking uterine action renders the sphere of its utility very limited. In losses of blood, after delivery the admirable effect of opium is principally seen in sustaining the powers of life. Forty-seven cases of hemorrhage before delivery occurred—in 29 it was of the accidental form, and in 8 it arose from partial or complete attachment of the placenta over the os uteri. In 5 of these the edge of the placenta was only over the os, while in 3 it was completely covered. In 3 the delivery was effected by natural efforts, in 1 by the forceps, and in 4 by turning. Three women died—1 from exhaustion, and 2 from phlebitis; 2 of them had been delivered naturally, and 1 with the forceps. In 14 instances the membranes were ruptured artificially, and delivery effected by the unassisted efforts of nature; in 13, loss of blood was restrained by other means, such as cold, ergot, stimulating enemata; in 1, delivery was effected by the forceps, and in 1 by the perforator and crotchet. Eighteen children were born alive, 9 dead, and 2 putrid. Four women died.

Hemorrhage after the birth of the child occurred in 56 cases; between the birth of the child and expulsion of the placenta in 31; and in 3 it continued after the extraction of the after-birth. In 10 cases the bleeding was very profuse; in 4 cases the bleeding occurred immediately after the birth of the child. In 20 cases the placenta had to be extracted by introducing the hand into the uterus; and 5 of the women died—1 of exhaustion, and 4 of uterine phlebitis. In 25 cases the hemorrhage occurred subsequent to the expulsion of the placenta; in 8 the loss was severe. Two women died—1 from the effects of the hemorrhage, and the other from uterine phlebitis. Twenty-eight cases occurred in which the hand had to be introduced for the removal of the placenta. In 16 cases the retention arose from want of proper uterine action; in 11 from morbid adhesion; in 1 from hour-glass contraction. In 19 cases there was more or less hemorrhage, and in 4 instances delivery was forced; 20 of the children were born alive, 5 dead, and 4 putrid; 1 was a twin case; 13 of the children were boys, of whom 11 were born alive; and 16 were girls, of whom 9 were born alive. Ten of the 28 women died—1 of exhaustion, and 9 of puerperal fever: of these 9, uterine phlebitis existed in 5.

In puerperal convulsions, copious bleeding from the arm was practised, and a mercurial purgative given, cold applied, and tartar emetic exhibited. The urine in this particular affection was noticed by our authors to be albuminous. In some cases it was found necessary to bleed two or three times, so that very many ounces were abstracted; 13 cases occurred—10 of which were first pregnancies, and 3 second; two of the latter had had convulsions in their first labours, and in the third case an interval of ten years had taken place since the birth of her first child. In 10 cases the convulsions came on before delivery, and in 2 they continued after delivery; in 3 the attack did not begin till after delivery; 6 of the children were males, and 7 females. Of those born alive, 3 were boys and 4 girls. Six women were delivered naturally, 4 by the crotchet, 2 by the forceps, and 1 by the vectis. Three died.

The circumstances which may be regarded as harbingers of rupture of the uterus are the following:—1. The former history of the woman's labours, when, in consequence of difficulty, there may be suspected deficiency of space in the hard passages. 2. Morbid lesions, either previously existing or produced by inflammation, indicated by a fixed local pain in the uterus for some length of time during pregnancy, and up to the time of labour. 3. During labour, constant and violent uterine action after the rupture of the membranes, without advancement of the fœtal head. 4. Cramp pain in the lower part of the abdomen, with tenderness over a particular spot. 5. Cramps in the legs accompanying the violent uterine action.—The symptoms of rupture of the uterus during labour are very well marked. The following are the principal:—1. A sudden and acute pain in some part of the uterus, different from labour-pain, or a sensation of something giving way. This has in rare cases been accompanied by an audible noise. 2. Vomiting of the ingested part, and afterwards of a brown, coffee-coloured liquid. 3. Debility and prostration. 4. Distended and painful state of the abdomen. 5. Sudden cessation of labour-pains. 6. Discharge of blood from the vagina. 7. Recession of the presenting part. 8. Limbs of the child discernible in the abdomen. 9. Speedy death of the child, which can be ascertained by the stethoscope. Nine cases of laceration occurred during the period of three years, to which the report extends, and they all proved fatal. Two of the women were delivered by the natural efforts; one by the forceps; two by the perforator and crotchet, and four by turning. Eight children were boys, all born dead, and one putrid; one child, a girl, was born alive. In four cases the accident occurred before the patients were brought to the hospital. One woman died nine hours after the accident; one in fifteen, and one in sixteen hours; two died on the second day, two on the third, one on the fourth, and one on the fifth day.

Ninety-five women were delivered of twins. Two of the mothers died, one of hemorrhage

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after delivery, and the other of uterine phlebitis. Of the 190 children, 171 were born alive, 85 first born, 86 second born. Of the entire number of children, 114 were boys, of whom 58 were first born, and 53 second born; 79 were girls, of whom 37 were first born, and 42 second born; 101 boys were born alive, 52 first born and 49 second born; 70 girls were born alive, 33 first born and 37 second born; 10 boys were born dead, 6 first born and 4 second born; 9 girls were born dead, 4 first born and 5 second born; four of these were expelled in a putrid condition. One triplet case only occurred.

Thirty-seven cases of prolapse of the cord were noted. In one case of twins, the funis descended below the presenting part of each fœtus.

The work concludes with a chapter on ophthalmia neonatorum, and on the management of stillborn children.

We have felt great pleasure in reading this excellent work. It is replete with information, is well written, and gives evident proofs of great experience and close observation.

THE MEDICAL TIMES.

SATURDAY, APRIL 22, 1848.

MEDICAL REFORM.

This fertile field of disappointed hopes and purposeless strifes is as fully occupied in this year of continental revolution and war as in any epoch within our remembrance. Exertion seems to have multiplied in the very proportion of its hopelessness. We have before us a Charter for the College of Physicians, and another for the new Incorporation of General Practitioners; we have also the scheme of a new act of Parliament by the representatives of the profession, and of a Registration Bill by somebody holding even in a less comfortable relationship; and, in addition to all these circumstances, more portentous than propitious, we have a parliamentary committee inquiring into our complaints, and asking after our remedies—in other words, making, under mountebank direction, a diagnosis *after* the physic has been so abundantly prescribed. Surely never was there a session when so much was doing, and certainly never was there a session in which less will be done. The very abundance of doing is the frustration of action: the cause is over-talked into a gallimatias, and over-done into a nullity. Between Grey on one side and Black on the other—between professional committees here and parliamentary committees there—we stand, like Gil Blas, patient between the two pugilistic doctors, or some unfortunate client ruined by lawyers in their anxiety to do him full justice. We are ruined with over-help, and have only reached the extremity of misfortune in the multiplicity of our friends.

In this last and additional calamity—part of which we have certainly not deserved, but some men's aid comes in the proportion in which it is repelled—it is difficult to decide what should be said, or what done. But, as in other embarrassing cases in medicine, the best policy is, probably, to adopt the expectant system. With time the complication will disentangle itself, and the fermenting mass get clarified. There is no such enemy to nonsense and quackery, and the pretensions of unprincipled and officious men, as a little quiet delay. As they flourish but in moments of excitement and hurry, they perish as certainly in periods of calm and deliberation. Let the profession hold its present position of observant, but almost indifferent, spectatorship, and the medico-political atmosphere will soon clear and brighten, and offer to us in certain perspective the path that should be trod and followed.

THE POOR-LAW.

The aims and purposes of the Poor-law Medical Committee form a subject not to be lost sight of for a single hour; and no exertion of country practitioners should be spared which may aid that desirable result. Poor-law medicine is one of those questions which may be carried piecemeal, and which, if ever secured—free from combination—will be secured—at first at all events—by instalments. Some of the worst cases have been already adjusted; others are receiving those preliminary attentions which will produce a similar result; and, if the public mind be kept alive to the grievances whose existence all sane men now acknowledge, improvements will be forced on boards of guardians the most reluctant, and medical men get justice.

In saying this we do not despair of a comprehensive, and not very remote, revision on equitable principles of the whole system of medical relief. *On the contrary, we believe that it is probable, imminent, inevitable.* In the House of Commons Mr. Buller avowed a strong feeling that this department of the public service should be set on a different—on a *National*—footing; and in the very important and protracted interview which "The Committee" had with him on Tuesday, he seemed to admit that this feeling had so far strengthened as almost to have ripened into a conviction. It remains with medical officers to complete the conversion. In the same spirit and with the same zeal as they have aroused a favourable feeling, let them sustain it. Let every instance of doctor-injustice or pauper-injury arising out of the present system be forwarded to the Committee, in order that it may reach the public and, under opportune circumstances, the Government. The good impression made by us must be preserved, and in the excellence of our case there never can be a lack of eligible materials. We are incontestably in the right—for our own well-being, if the phrase may be allowed us, too much so—and, with a little common sense and activity, we shall continue to retain all those sympathies we won in the first place, and which are every day telling in one way or another in our favour.

In the present state of public business it is, of course, not to be expected that that reorganization which we have declared to be inevitable can take place immediately; but the interval, even when not spent in strengthening and supporting the Minister's purpose, may be directed to improvements which will not be without their advantages even after the larger change. In answer to the Committee's strong protest against the present system of "books," Mr. Buller said, "Send me your suggestions for an improvement, and, if good, I will adopt them." Here, then, is one—no contemptible—saving of time and labour, which may at once be effected if the profession will elaborate for the Minister some system—no difficult matter—which, while more compendious, shall be at least as efficient and complete. The Committee will, of course, undertake the labour, but, in the meantime, it might be no small assistance if medical officers who, labouring under the grievance, have bethought themselves of a remedy, would forward to it their suggestions.

In fine, in reference to individual cases of more than usual injustice, as to a change of the whole system there is abundant reason for hopefulness, and, to the man most prudent in his investment of time or money, there exists abundant justification for his giving the Committee his best and most assiduous assistance.

ON MEDICAL EDUCATION.

[FROM A CORRESPONDENT.]

"Honos alit artes, omnesque incendunt ur ad studia gloria; jacentque ea semper quæ apud quosque improbantur."—Cicero *in Tusc. Disp.*

Amid the various subjects which the growing intelligence of the age has brought forth into public discussion, few are passed over so slightly as the subject of medical education; and yet fewer still there are which deserve such paramount attention. Throughout every clime, wherever any portion of the great human family "live, move, and have their being," the healing art claims the highest niche in the household temple, and in that proportion should rank the importance of the steps in its initiation.

Why, in this boasted time of our advanced civilization, this neglect should have occurred, it is needless here to inquire. Even within late years we know that the narrow spirit of jealousy engendered by the various medical corporate bodies has done much to retard and keep down medical education. Money laid out in lectures, and not knowledge acquired by diligence, was made the test of successful study with the pupil; interest, and not intellect, was the road to professorships and offices of honour and emolument in the councils of the various colleges. Students became practitioners by little more than the purchase of their licence; and thus a combination of avarice and selfish ambition prostrated the energies of those who had higher aspirations, and degraded the initiatory rites of a scientific profession to the level of a mere parchment traffic. There were at times great efforts made to shake off this bondage; but the influence of a few weighed as nothing against the chartered strength of corporate powers; and so the evil has gone on to the present day.

Pre-eminent in its utility and in the philanthropy of its members, as the medical profession has ever been, it is not easy to discover whether the neglect of which we have spoken is to be attributed solely to some particular section of its members, or to the perverse indolence (aided occasionally by the antiquated prejudices) of the whole. But it as clear as noonday that it is a duty incumbent, not on the profession alone, but also on the public, to be interested in the promotion of an object fraught with so much public interest. Had incorporated colleges never existed, the attainment of a high degree of education in our profession was an object of interest to all; and the endowment of such institutions, instead of *removing*, from the public or the Legislature, possibly *increases* the responsibility of looking after the health and well-being of the people. We are all responsible to God for the life he has given us to be tended and cherished, for the duties he imposes, as well as for our own happiness; and, if we rashly throw that life into the hands of ignorant men, it is our own neglect and folly, not their ignorance, we have to blame for the consequences. "A well-educated medical man," as Sir H. Marsh says, "is a blessing; but an ill-educated one is a curse." Other sciences may bring more glowing fame to their possessors, but the steady lights which burn on our altars—mercy, charity, benevolence, and religious hope—show the divine attributes which

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are its birthright, and every region of the globe knows and feels them. It takes grandeur where others find but meanness, and vindicates moral greatness out of physical horrors—by the dying bed of the destitute—in the deadly contagion of the hospital—in the harrowing sufferings of the operating theatre. "The hero and the despot," eloquently observes Dr. Graves, "may extend a sovereignty over distant regions—may exert an unlimited control over millions of vassals—may dispense honour and rewards, or inflict punishment and death; they may, like Alexander, grieve at the narrow limits of a conquered world, and sigh for other scenes of glory—but they cannot chase away pain; they cannot bid the burning thirst to cease, or bring back repose to the sleepless; they cannot impart feeling or motion to the paralysed, or sight to the blind; and, above all, they cannot imitate that almost godlike function of the healing art, by which man is enabled to recal to his fellow-man, reason long banished, and restore to society the hapless victim of insanity."

The time on which all this individual usefulness depends is the season of youth, when impressions effected on the mind are ineffaceable, when we can see visibly and watch the progressive advancement of the mental powers—when there is the spirit to will and the force to execute, the buoyancy that mocks at sorrow, and the energy of mind that defies fatigue. Some writer excellently remarks that, "one wicked or impious thought, uttered in a careless spirit, may fall upon the youthful mind, like a drop of water upon polished steel, staining it with a rust which no scouring can efface." And if, in addition to such accidents, neglect be allowed to strengthen natural divarication, that which might else have flourished in excess of usefulness is converted into a rank and noxious waste.

But, to attain our aims, we are not to depend alone on the Legislature or the public. It is the medical profession itself which must be the grand lever whereon to move the reform. All private jealousies and unworthy bickerings should be flung to the wind. It is not in a moment that a change so vast and so important can be effected. The routine habits of years cannot be abolished in a day; nor can those substituted for them be other than of gradual birth. No hothouse forcing will make them spring up into vigorous and healthful life; they must take a firm hold in the soil before they can yield the promised fruits. Great changes in the moral world, like great discoveries in philosophy and science, are of tedious growth: they require to be cherished with care, and to be supported by steady perseverance.

To the public, the Legislature, and the profession, the following are objects of inquiry:—

First,—What preliminary education, moral and intellectual, is most suitable?

Second,—What kind of education is most suitable, preparatory to undertaking the *practice* of our profession?

Third,—What are the best means of rendering this education available to the student?

The scholastic *systems*, as they are styled, of the present day, instead of furnishing encouragement to the studious, offer much positive discouragement. Philosophy, which, as Goldsmith observes, "though a very good horse in a stable, is but an errant jade on a journey," is substituted for practical knowledge; and the universal ambition to know everything ends in the deplorable result, that nothing is known well. "It is the age of diffusion and smatter," says M'Cullagh; "the mania for universality is at its zenith. The test of good education has been made to consist, not in what a man thoroughly knows, but in the number of things he can make people believe he is not utterly ignorant of. General knowledge, as it stands now, is little more than a patchwork cloak for muffling our ignorance in. Every one knows, or pretends to know, a little chemistry and a little botany, a little Latin, something of French, and to possess some general notions of history:—general balderdash! And then we have literary appliances to suit the fashion of the day: multitudes of summaries, abridgments, Pinnock catechisms, and so forth,—tools for the hapless memory of enslaved childhood to work with in its panoplicon prison."

The injury which has been thus done by these railroad processes of keeping up with the boasted march of intellect deserves special attention. We would not be understood as decrying the universal thirst for information, so characteristic of the age we live in; but the extent to which the absurd notion of making every youth a philosopher is carried is productive of very serious evils. The remarks of Moore on this subject are worth remembering; he says:—"There is little doubt that, to any youth of talent and ambition, the plan of instruction pursued in the great schools of this country, wholly inadequate as it is to the intellectual wants of the age, presents an alternative of evil not a little embarrassing. Difficult, nay, utterly impossible, as he will find it, to combine a competent acquisition of useful knowledge with that round of antiquated studies which a pursuit of scholastic honours requires, he must either, by devoting the whole of his attention and ambition to the latter object, remain ignorant on most of those subjects upon which mind grapples with mind in life, or by adopting, as many distinguished persons have done, the contrary system, consent to pass for a dunce or an idler in the school, in order to afford himself even a chance of attaining eminence in the world." Truly this is a pitiable alternative for aspiring minds; and certain it is that, when young men are compelled to get through an absolute quantity of science and classics within a prescribed period, they cannot acquire else than a confused notion of them. Where the aim of education is not a full expansion of the intellectual power, but a dull, monotonous inculcation of formulæ, the consequence will be that the faculties of the individual will be contracted and diverted from their legitimate course; and that which, under a proper mode of culture, would have been symmetrical and strong, becomes, by a system of mismanagement, deformed and weak.

These preliminary remarks made, we shall in our next touch on some of the limits within which we would confine studies preparatory to a medical course.

MR. STANLEY AND THE NEW ARRANGEMENT.

Some mistakes having been made as to the purport of certain evidence given by Mr. Stanley before the parliamentary committee, it is, perhaps, desirable to say that there is no doubt that, in the arrangement made by the Committee acting on behalf of the Colleges and the General Practitioner, it *was* (and *is*) clearly understood that the new incorporation should have the full right to examine candidates for its diploma in anatomy and surgery.

Though a mistake of Mr. Stanley furnishes apparent grounds to a contrary supposition, the parties who have given currency to it know that they were *endeavouring* to raise alarms on false pretences (part of a customary stock in trade).

THE POOR-LAW COMMITTEE.

A large deputation from this body had a long interview of the most satisfactory kind, on Tuesday last, with Mr. C. Buller. The details will be published in the medical journals of the next week.

One of the most convincing illustrations of the extent and burdensome character of the grievances to which the poor-law surgeon is subject may be found in the readiness of gentlemen, to whom time and application are of the first importance, to sacrifice both in an opposition which those wrongs have rendered imperative. Since the memorable meeting of the Convention, many gentlemen of ability have taken up the pen to expose and denounce the flagrant injustice of the present administration of medical relief under the existing poor-law system, and their number receives a worthy accession by the publication of the pamphlet of Mr. C. F. Lord, of Hampstead. There needed not a stronger condemnation of the present mode of administering poor-law medical relief than that the writer of such a letter as that just addressed to Mr. C. Buller, the President of the Board of Poor-law Commissioners, should be subject to the humiliations and injustices bound up with that system. Characterised by great force, a perfect mastery of the subject, and its classic style, exhibiting both gentlemanly feeling and scholarship, his letter must bespeak a large share of public attention, and impress the reader with the justice and dignity of his cause. The production of a member of the Convention Committee, we regard it as another indication of the unabated interest felt by every member in the great work to which he has placed his hand.

MEDICAL REFORM.

[To the Editor of the Medical Times.]

Sir,—Allow me a short space in your columns for a few comments relative to the above topic remaining in *statu quo*. We have now arrived almost at the close of another parliamentary session, and here we are located, in reference to reform, as we were years ago. Many valuable suggestions have been offered by your able correspondents for the furtherance of the object; but it being beset with so many difficulties, and finding barriers without end opposing them in their exertions, their well-directed attention has been completely baffled in arriving at anything like a satisfactory conclusion as to the best mode for framing a bill on the subject of future medical legislation, or, at all events, such a one as would meet with universal approval; indeed, in the present undecided state of the profession it seems almost next to an impossibility that any scheme, however well constructed for its accomplishment, should succeed. The problem, however, is easily solved when we reflect how extremely diversified are the views entertained on the subject by the great bulk of the profession. All admit the necessity for reform; that there is a something required no one will for a moment hesitate to acknowledge, but what that something is we are still at a loss to decide. Diametrically opposed, therefore, as we are almost to a man, we need no longer wonder or feel surprised that nothing has been done. Surely, if we don't know ourselves what it is that we really stand in need of, it is scarcely to be expected that the Secretary of State can form even an idea as to what is really required. It is an old adage that unity is strength, and, to accomplish anything like victory, we must one and all give a listen-

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ing, sympathising our to the often-mooted question, viz., what is it we require in the way of reform?

I am disposed to leave the question, feeling comparatively indifferent about it, and fully persuaded that by reforming ourselves we can do equally as much, if not more, good in many things than by any legislative interference. I allude now more particular, to gentlemen in practice, those who adopt the degrading system of low charges, which has not only a tendency to make people dissatisfied with a fair and just demand for services done, but has the further tendency to lower the profession considerably in public estimation. Wishing to see medical men who feel anxious to have this subject settled fraternise more in the cause,

I am, Sir, your obedient servant,

Ipswich, March 4. OCTAVIAN BOYLE, M.D.

THE EXTRA-URBEM LICENTIATES AND THE COLLEGE OF PHYSICIANS.

[To the Editor of the Medical Times.]

SIR,—It appears that it is contemplated in Clause 5 of the intended charter of the College of Physicians not to allow graduates in medicine later than a certain date (yet to be fixed) to procure the associateship of the college without undergoing another examination; and I would urge upon you the necessity of using your best efforts to prevent this retrospective legislation. Such a clause would operate very unfairly upon very many highly qualified members of the profession, and I sincerely believe would be injurious to the college itself.

It may be very proper to refuse admission to the college to such as have purchased their diplomas through the medium of agents, or without residence or examination; but to compel the *bonâ fide* physician, the graduate of any British university, to undergo an examination at the College of Physicians, simply because he happened to have graduated after a certain date upon which they may fix, would be an act of injustice to him.

Such a clause would act injuriously both in reference to the profession generally, and the College of Physicians in particular. It would fail to bring about that uniformity of registration which it is so desirable to establish, and which the main features of the proposed charter, and of the principles for a proposed medical bill, are calculated to effect, with this exception. It will be immaterial to many practising physicians whether they shall be registered as physicians or not; they are in good practice, known to be highly educated and qualified men, both by the public and the profession, and they will not submit to another examination at the College of Physicians. Is it probable that a man who had practised many years as a general practitioner, and, thinking it desirable to take the M.D. degree, had proceeded to a Scotch university (because, under some circumstances, he is shut out from other universities), would submit to another examination at the College of Physicians, in order that he may be registered as a physician? Is it probable, again, that a man who had undergone three most stringent examinations in the University of London for the M.B. and M.D. degrees would submit to another examination at the College of Physicians? I think not. Then what will be the result? That there will be a goodly number of physicians in town and country, gentlemen practising as physicians, but not belonging to the College of Physicians, and not registered as physicians. Nor will it end here; for this state of things will undoubtedly have a considerable influence on many of the future graduates in medicine, who will be too ready to avail themselves of such an excuse for avoiding an additional examination, and the payment of an additional fee, for what will clearly be an unnecessary and useless title. This would seem to be the natural working of a retrospective clause like Clause 5 as it now stands, and you will do good service by assisting to get it removed. Let every physician who had qualified himself by graduating in any recognised university before the day in which the charter shall be granted be at liberty to become an associate, without examination, of the College of Physicians, and it will be found that very few, if any, will omit to avail themselves of such opportunity to belong to a college which may then boast of being really, as well as nominally, the College of Physicians of England.

I beg to state that I have no personal interest in the matter, and that it is solely from a desire that the liberal proceedings of the College of Physicians should not be in the least thwarted by an unjust retrospective clause like the present that I have troubled you with these hasty observations, and sought your co-operation in the removal of it.

I am, Sir, your obedient servant.

April 13. MEDICUS.

RETIREMENT OF PROFESSOR COOPER FROM THE CHAIR OF SURGERY AT UNIVERSITY COLLEGE.

We last week announced the resignation of Mr. Cooper. The following is the substance of his farewell address to the surgical class:—

After having occupied this chair of surgery for the long space of seventeen years, I shall, in a few days, tender to the council my resignation of it. This determination was forced upon me nearly three months since—not entirely by considerations of my health, nor by any inability to continue these lectures, had only the same degree of assistance been conceded to me which was allowed in Mr. Liston's lifetime. It is needless to trouble you with all the little details relating to this matter. Suffice it to say, that my resolution was founded upon the impossibility of any agreement between me and two of my colleagues (the two who almost rule the medical end of this institution) on certain points affecting the claims of gentlemen brought up at this school, not to be forgotten in the distribution of its patronage; and also involving, as it appears to me and a large body in the profession, the character of the college itself.

This medical school has now been in operation twenty-three years; and, amongst the vast number of gentlemen who have been educated at it, there are some of the most promising and best-informed men in the profession—highly qualified to perform any medical or surgical duty, however difficult. If this be true, the plan of sending for strangers to fill professional offices in this place is not only unnecessary and unfair, but a serious discouragement to those who strive hard to gain the highest honours in the school. I have, therefore, expressed, on several occasions, the strongest disapprobation of this system. I speak as plainly now as I would have done to the council itself, had the occasion presented itself.

Gentlemen, having incidentally mentioned the name of Professor Liston, I might appear deficient in a proper regard for his sterling and original merit, if I were to neglect this opportunity of publicly expressing the high estimation in which his surpassing abilities in operative and practical surgery were held by me; how sincerely I deplore the loss of my late colleague, and the apprehension in my mind that it will be long before another Liston will appear in this or any other medical school of the kingdom.

In taking leave of you, with my best wishes for your prosperity, I have one favour to ask, which is, that you will allow me to go home quietly, and not assemble and shout at the college gate on any account whatsoever. I shall esteem you the more for dispensing with this and every other mob-like proceeding, to which there are several objections. The poor patients in the hospital might be disturbed by your vociferations; and, in these Chartist times, a false alarm might readily be caused in the neighbourhood, so as to bring out very unnecessarily some of the newly-sworn special constables. But, supposing not a single human being were to be frightened, my horses, I fear, might not know what to make of the business.

KINGSTON ASSIZES.—APRIL 1.

Doe on the demise of Clark v. *Tatom.*

AT WHAT AGE DOES MENSTRUATION CEASE? SINGULAR QUESTION OF IDENTITY.

In this case, which was an action of ejectment, the identity of a female rested in some degree upon the period of life at which the menses ceased. The plaintiff, Clark, claimed an estate through his wife, to whom he was married in 1794. They had three children, but, in consequence of disagreement, separated in 1809. The wife, it was alleged, died in 1843, and the defendant, Tatom, took possession of some property belonging to her. The husband now sought to recover this property. One witness deposed that she knew Mrs. Clark, and that she was about seventy years old when she died. This would have made her age at marriage twenty-one. Another witness, who provided her funeral, put on her coffin-lid, by the direction of defendant, the age of fifty-five; and stated that he should have considered her to have been about that age, or not more than two or three years older. If this were true, the deceased Mrs. Clark must have been married when she was six years old! This witness afterwards said that there was another Mrs. Clark still living at Norwood (the place where deceased resided), who appeared to be between fifty and sixty years old. This was an unfortunate admission, because, taking the age of the surviving Mrs. Clark at fifty-five, she must also have been married at the age of six years. The unlucky witness, therefore, proved that the plaintiff either married in 1794 a girl of six years of age, or that neither the surviving nor the deceased Mrs. Clark could have been his wife, when the evidence clearly showed that he must have been married to one or the other.

In this stage of confusion in which matters were left by the undertaker, medical evidence was called, in order to prove the non-identity of the deceased female with the lady whom the plaintiff married in 1794.

Dr. Laurie, a physician who was practising at Norwood in 1841, deposed that he had attended Mrs. Clark (the deceased), and at that time she appeared to be about fifty years old. The witness then detailed the circumstances under which he was called upon to attend the deceased, referring to a particular change in the female constitution which he said usually occurred to them so late as the age of fifty, the general period being forty-four.

Cross-examined. He judged of her age from the colour of her hair and other circumstances. He saw nothing to induce him to believe that she was more than fifty years old when he attended upon her.

Dr. Alison, another physician, gave similar testimony.

If the evidence adduced by the plaintiff were correct, and the medical opinion in accordance with medical experience and doctrine, it followed that the woman who was not more than fifty in 1841, must have been married to her husband the plaintiff, when she was three years old. Thus the case was rendered little more ridiculous than it had been left by the undertaker.

It was well observed on the part of the defendant that the case was full of difficulties, and the testimony of the witness for the plaintiff (Mrs. Hudson) the plaintiff's own sister, completely confounded the absurdities of the whole. Mrs. Clark, who died at Norwood in 1841, was the wife of the plaintiff, but on the other hand the medical testimony, which appeared very clear and decisive, rendered it quite impossible that she could have been the same person. The jury found for the plaintiff.

WESTERN MEDICAL AND SURGICAL SOCIETY—44, SLOANE-STREET.

The second annual meeting of this society was holden on Friday, the 7th instant, at the large room in the Cadogan gardens, Sloane-street. There was a strong muster of members and visitors on the occasion. The chair was taken by the President, Sir James Clark, Bart., at eight o'clock P.M. precisely. The report of the council was first read, from which we learn that the society is progressing favourably; that the library contains between three and four hundred volumes; and that the funds were in a satisfactory condition, the income of the society for the past year being £71. 18s. 7d., the expenditure £51. 15s. 9d., leaving a balance in the treasurer's hands of £20. 2s. 10d.

The following members were then elected to fill the various offices in the society for the ensuing year:—

President.—Sir Benjamin C. Brodie, Bart.

Vice-Presidents.—Dr. Mantell, Mr. Dickenson, Dr. Millingen, and Mr. Gaskell.

Treasurer.—Mr. Woolley.

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Secretary.—Mr. Seaton.

Council.—Dr. Aldis, Mr. Barnes, Mr. Ince, Mr. Keen, Mr. Mackintosh, Mr. Mould, Mr. Mutter, Dr. Pettigrew, Mr. Phillips, Mr. Pollard, Mr. Symes, and Mr. Whitmore.

Auditors.—Mr. Batten and Mr. Whider.

The formal business being concluded, Dr. Mantell (of Chester-square), one of the vice-presidents of the society, delivered a highly interesting and eloquent lecture, illustrated by diagrams and drawings on the structure and vital functions of the infusoria and other microscopical animals.

The lecture, which was delivered throughout in a strain of most fervid and graceful eloquence, was listened to with marked attention, and the lecturer, at the conclusion, was enthusiastically applauded.

On the motion of Sir James Clark, thanks were given to Dr. Mantell, and the society adjourned at ten o'clock till the first Friday in May.

GOSSIP OF THE WEEK.

War-office, April 14.—Hospital Staff: Assistant-Surgeon George Rocke Smith, to be Staff-Surgeon of the Second Class, vice William Gibbin Byrne, who retires upon half-pay.

Royal College of Surgeons.—Gentlemen admitted members on April 14:—R. Woodman, T. F. Read, H. Hoggan, T. E. Goldsmith, J. S. Lordell, T. W. Tapp, T. T. Barkway, G. W. Mackenzie, and W. Webb.

Apothecaries' Hall.—Gentlemen admitted members on Thursday, April 13:—Thomas Jessel Hedley-on-Thames, Oxon; Benjamin Bush, Bridgham; Charles Worth Pearce, Leeds; Henry Treman, York; Thomas Alcock, Chesham; Charles Martin, Stockton; William Thomas Holme Burrow, Settle, Yorkshire; Joseph [illegible] Symes, Crewkerne; William Birds Wall, Liskeard, Cheshire.

The Royal Society.—The last *conversazione* of the members of the Royal Society under the presidency of the Marquis of Northampton took place on Saturday evening, at his lordship's residence on the Terrace, Piccadilly. The meeting was very numerously attended. With this meeting closes the presidency of the noble marquis. Among the noblemen mentioned as likely to succeed to the vacant office are the Duke of Northumberland, the Earl Rosse, Lord Wrottesley, and the Marquis of Westminster.

Election of Medical Men to Seats in the National Assembly.—An association of the profession has been formed in Paris for the purpose of securing the election of those medical men who appear fitted for seats in the National Assembly. As clubs and committees, professional and political, are all prepared with lists of candidates, it is proposed that the influence of the Medical Association should be extended to the non-professional candidates, and that these should be selected according to their merits. The editor of the *Union Médicale* states that four physicians are already on his list, and the names of about thirty candidates are waiting for selection. Among the medical candidates for the honour of a seat in the National Assembly are the following:—M. le Docteur Alquier, ex-Professor of the Val de Grâce; Dr. Pinel; Dr. Rouhel; M. Aubert Roche; and Professor Trousseau. The twelve district medical societies of Paris have agreed that the number of medical candidates, to whom the profession would give their entire support, should be four, viz., MM. Guyon, Bouillaud, Recurt, and Buchez.

Diminution of Quarantine from Egypt and Syria.—By a resolution of the Board of Health, passed at Malta 18th March, 1848, ships of war and steamers arriving from Egypt or Syria, having on board a surgeon, and provided with a clean bill of health, will be admitted to pratique after twelve days have elapsed from the time of leaving port, with the understanding that seven days of which are to be performed in this port. In cases where the voyage has been performed in less than five days, the quarantine in port shall be for as many days more, besides the seven days above mentioned, as are required to complete the twelve days, including the voyage. Merchant vessels carrying a clean bill of health, without any susceptible article on board, shall perform seven clear days in port, whatever may be the length of their voyage. Vessels carrying susceptible articles shall perform ten days' quarantine in port, to be reckoned from the day on which such goods are landed in the Lazaretto. Susceptible goods shall undergo a quarantine of twelve days in the Lazaretto. Passengers landed in the Lazaretto shall perform the same quarantine to which the ships whereupon they have taken passage shall be subject to. Vessels carrying pilgrims, and the pilgrims themselves, shall perform a quarantine of twelve clear days in port. Arrivals from the regency of Tripoli will enjoy the same modifications as those vessels coming from Egypt or Syria.—*Malta Mail*, March 24.

Society for Relief of Widows and Orphans of Medical Men in London and its Vicinity.—This society was formed in the year 1788, by Dr. Thomas Denman, Dr. Richard Dennison, Dr. Andrew Douglas, Dr. John Sims, Dr. John Squire, Mr. William Chamberlain, and Mr. Thomas Randall, with the object of establishing a fund for relief of those widows and orphans of deceased members who might need and be deserving of assistance. It unites the advantages of a provident with those of a benevolent society. It is provident, as the members may through it protect their families from destitution; and it is benevolent, as its benefits are conferred on those who are left in indigent circumstances. All duly qualified members of the profession, residing within the limits of the society, are eligible for proposal, and the mode of admission is by ballot. The society's affairs are managed by a president, twelve vice-presidents, three treasurers, and twenty-four directors, who are elected by the members annually, and whose services are gratuitous. The society has been greatly assisted by legacies and contributions from members and others, and has especially to acknowledge the gracious patronage of various members of the Royal Family. The permanent efficiency of the society depends on the maintenance of a due proportion between the avilable income and the claims made on the funds. Computations have been made by experienced actuaries on all points susceptible of calculation by way of average. The proportion of members whose families may become claimants for relief scarcely admits of calculation; but the experience of more than fifty years has proved the wisdom and benevolence with which the society was planned, and the prudence and efficiency with which its affairs have been conducted. The society is enrolled among friendly societies; the capital stock, converted into sterling money, is invested in the Bank of England at compound interest, and amounts to more than £45,000. Eighty widows and thirty-seven children have been relieved since 1793. Thirty-one widows and twenty children are now receiving relief, which amounts to more than £1400 per annum.

Abolition of Fees on French Diplomas.—A deputation from the Parisian Medical Schools has had an interview with the Provisional Government, for the purpose of demanding the abolition of all fees for examinations, diplomas, &c. It is alleged that these fees are fixed on too high a scale, considering the expense incurred for medical education. The deputation was favourably received.

University Reform.—The following is the copy of a memorial to the First Lord of the Treasury, now in course of signature in both universities:—"The memorial of the undersigned graduates showeth—That the present system of the ancient English universities has not advanced, and is not calculated to advance, the interests of religious and useful learning to an extent commensurate with the great resources and high position of those bodies. That the constitution of the Universities of Oxford and Cambridge, and of the colleges (now inseparably connected with their academical system), is such as in a great measure to preclude them from introducing those changes which are necessary for increasing their usefulness and efficacy. That under these circumstances, believing that the aid of the Crown is the only available remedy for the above-mentioned defects, your memorialists pray that your lordship will advise her Majesty to issue her royal commission of inquiry into the best methods of securing the improvement of the undergraduates of Oxford and Cambridge." A meeting of the memorialists, it is understood, will be held in London in May.

The Students of University College and Mr. Syme.—The students of the above college, to the number of nearly 200, have lately presented to Mr. Syme a congratulatory address on the occasion of his settlement amongst them as professor of clinical surgery.

Sanitary Reform.—Meeting of Clergy.—On Friday last, the 14th inst., a meeting was held in the parish vestry-room of Christ Church, Spitalfields, for the promotion of sanitary improvement, and was numerously attended by the clergy of the large and populous parishes of Bethnal-green, Bow, Bromley, St. George's-in-the-East, Limehouse, St. Luke, Poplar, Shadwell, Shoreditch, Spitalfields, Stepney, Wapping, and Whitechapel. In the absence of Sir Edward N. Buxton, who was unexpectedly called away by more pressing parliamentary duties, the Rev. W. Stone, rector of Spitalfields, was placed in the chair. The numerous clergy assembled, from their experience in some of the most populous and necessitous parishes in the metropolis, concurred in deploring the extreme inadequacy of all existing legislation of a sanitary kind, and in urging the necessity of one more likely to be effective, by giving greater powers to local administrative bodies, and making these bodies immediately responsible for the exercise of those powers to the Legislature. They expressed regret that either public bodies or individuals should think of opposing the sanitary measures now submitted to Parliament by the Government, and passed several resolutions, by which they appointed a Central Sanitary Committee for the east of London, composed of the incumbents and one layman of each of the thirteen parishes above named, and engaged to promote the formation of sanitary committees and sub-committees in each parish and district, which should personally inspect their sanitary condition under heads of inquiry prepared for the purpose, and report upon it at periodical meetings of the committees, communicate upon it, as might from time to time seem desirable, to the Sanitary Commission or the new Consolidated Commission of Metropolitan Sewers, and promote petitions in favour of the measures contemplated by Government among all their parishioners, and, not least, among the labouring classes of them. It was determined to publish the resolutions in three of the London newspapers; and an earnest hope was felt by all present that this meeting of clergy would be followed by others elsewhere, and would lead to the systematic organization of a similar machinery for bringing sanitary improvement to every district and every home throughout the kingdom.

A Thorough-paced Snob.—A person of the name of Caldwell, who affixes to his name the words "Lieut.-Col. R.R.I.C.," and dates from the "English Club," at Rome, in an impertinent letter directed to the *Daily News*, by way of an apology for the insolent doings of some vulgar persons who compose that club, gives us the following racy specimen of toadyism and snobbery:—"I am but an individual, and am no ways responsible either for the club or its by-laws. They are a private society of English gentlemen, and they have made such by-laws as they thought fit, and they will hold to them. One is to exclude professional men and bankers, not as men of business, but as men of business in Rome, where we are associated not for business but for pleasure. I have no particular dislike to doctors. When any of them is duly authenticated

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as coming in the train of a nobleman or wealthy gentleman, I always pay them such attentions as their relations warrant; otherwise I never trouble my head about them. Prince Torlonia is admitted among us, not as a man of business, but as a prince and a gentleman, to whom we all stand more or less indebted in social respects. We could not avoid it, in fact." Pretty cool all this, and yet will it be believed that this club snob is after all a jackdaw in borrowed plumes—for no Indian officer has a right to sport his titles west of the Cape. These are the persons that bring the name of Englishmen into contempt for insolence and pride, amongst foreign nations.

FRENCH MEDICAL ELECTIONS.—The medical profession of Paris have unsuccessfully made the request that the surgeon of the citizen troops should not be elected by the medical men and the officers of the different legions conjointly, but by the former alone.

BUST OF MR. GREEN.—Mr. Malerbi, of Charles-street, Hatton-garden, has just published a small bust of Professor J. H. Green.

NEW HOSPITAL IN PARIS.—The Hôpital Louis Philippe, now Hôpital de la Republique, is nearly completed.

OBITUARY.—On March 31, of fever, George Mahon, M.D., medical officer of the Eyrecourt Dispensary.—Lately, aged 82, M. Pierre Joseph Romain Cazenave, surgeon-major of the National Guard, Paris, &c.—Lately, of fever, Edward M'Grath, M.D., assistant-physician to the workhouse, Scarriff.

MORTALITY TABLE.

For the Week ending Saturday, April 8, 1848.

Causes of Death.	Total.	Average of 5 Springs.
ALL CAUSES.....	1047	943
SPECIFIED CAUSES...	1046	989
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	275	176
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	48	50
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	107	122
Diseases of the Lungs, and of the other Organs of Respiration	181	129
Diseases of the Heart and Blood-vessels.....	32	33
Diseases of the Stomach, Liver, and other organs of Digestion	62	62
Diseases of the Kidneys, &c.	11	10
Childbirth, Diseases of the Uterus, &c	8	12
Rheumatism, Diseases of the Bones, Joints, &c. ...	7	9
Diseases of the Skin, Cellular Tissue, &c.	0	1
Old Age	34	55
Violence, Privation, Cold, and Intemperance.....	31	99

NOTICE.

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TO CORRESPONDENTS.

"H. B."—"Louis Philippe on Virility, &c.," offers suggestions identified so much with a prurient obscenity and so little with a respectable science, as to be unsuited for comment in decent columns.

"H."—The paper has been received.

Dr. Knox's paper will be continued in our next.

"R. D."—We are much obliged by the very flattering offer, which we decline.

"A Surgeon."—The inquiry, "Who cut off the head of Thistlewood?" should be sent to some other journal. Apply to the editor of the *Sunday Times* or the *Dispatch*.

"H. B. (a Pupil)" had better address himself to the secretary (Dr. Streeten), at Worcester.

"Mr. C. T."—1. Will receive a Chart on becoming an annual subscriber on the usual terms. 2. By a post-office order.

"Obstetric," who has taken the trouble to address us about what he designates the plagiarisms of a Dr. T. Smith, takes too severe a view of that person's contributions. The public knowing that his remarks comprise a systematic compilation, the writer justly feels that a formal acknowledgment of his obligations is as unnecessary as it would be troublesome. Besides, it would be opposed to the recognised practice of the Marshall Hall school of authors, to whose "*discoveries*" we are much indebted for our present knowledge of the ancient authors.

"A Young Medical Pupil."—The indentures must be transferred, or the Apothecaries' Company will not admit to an examination.

"Reprehensor."—The offer is accepted; brevity, however, must be studied.

"Hygiene."—Temperance societies have, without doubt, effected much good; we cannot, however, open our pages to a consideration of the benefits of total abstinence hygienically considered.

"An Old Friend."—The supply at present far exceeds our limits.

"Patronus."—The tables would occupy too much space, and would, moreover, not afford all the information on the subject "at a glance."

"A Medical Assistant" writes us—"Much has been said and written concerning the oppression of certain classes; there is not a class of men, however, more oppressed than medical assistants. In the situation I now occupy, I am expected to be in the shop from eight in the morning till ten at night, during the greater part of which time I am busily engaged. I am, moreover, frequently called out of my bed at night to attend midwifery cases, and I receive as a salary the splendid sum of £30 per annum. Can you devise any means for ameliorating our condition?" The assistants should meet and discuss their grievances amongst themselves. Without unity there is no strength.

"Cautious."—We cannot recommend the society, as we know nothing of it.

"L. G., Hackney."—The adjournment of the trial does not affect the fee of the medical witness.

"A Hospital Surgeon" shall receive a private communication.

"A General Practitioner, Leeds," remarks that, "from the high price of leeches, it would be desirable if some more efficient means than those now employed for their preservation could be discovered. I have found that the best vessel to keep them in is a tub, the internal surface of which has been reduced to charcoal, and the bottom covered with sand and moss. I renew the water every day."

"Dubitans."—There is no doubt that transfusion has been successfully employed in cases of uterine hemorrhage. The necessary apparatus may be obtained of any respectable surgical-instrument-maker.

"Mr. Fincham."—Some parts of the manuscript are illegible. Write again with a little more care.

"An Unfortunate Member of the Profession."—We fear the plan will not succeed.

"Dr. G. Harrison."—Yes.

"Mr. Budge."—The society will not prosecute; it will only give advice gratis.

"A Scotch Surgeon" asks "if the London Apothecaries' Court of Examiners might not be composed of persons possessing no knowledge of medical science?" Yes; the court, however, has for a long time been composed of gentlemen holding the double qualification, and of repute as general practitioners in the metropolis.

"Chirurgus."—The propositions and arguments on the question to which they relate want originality.

"A Dublin Apothecary."—The English Apothecaries' licence is necessary in order to become eligible for the appointment.

"Fair Play."—The connection which exists between some physicians and druggists is not to be defended, as our correspondent supposes, on the plea that a physician may have greater confidence in the accuracy and integrity of one druggist than another. Such a connection is derogatory to the members of an honourable profession, and a fraud upon the public.

"A Surgical Pupil" is mistaken. The process of ulceration does not consist in erosion; pus is a bland fluid possessing no solvent power over the substances of the body.

"Quiz."—Not the same.

"Junius."—An advertisement might be tried.

"Amicus."—We should be glad of an early communication, everything is of importance in such a case.

"Medicus, Glasgow."—The extra-urban licentiates of the College of Physicians are actively engaged in resisting the new charter. We will forward privately the desired information.

"Mr. Tevesham."—Apply to the secretary of the College of Surgeons.

"A Cambridge Student."—1. A person can be admitted a licentiate of the London College of Physicians without graduation. Such licentiate is now eligible for the fellowship. He is also allowed the title of M.D. 2. There are three examinations by the president and censors, conducted either in Latin or English, at the pleasure of the examiners.

"Delta."—The Bath United Hospital contains about a hundred beds, and is recognised by the College of Surgeons. The house-surgeon, we believe, pays a small sum on his appointment.

"A Sanitary Reformer."—There is little prospect of the bill being dropped, though it is experiencing considerable opposition.

"Adolescens."—The fourth nerve is supposed to be the motor nerve of the superior oblique muscle, as it receives no other. Experiments have afforded no satisfactory results as regards its functions.

"Pathologist."—The circumstance observed by our correspondent in the case of a man who was killed by a blow from one of the vanes of a windmill is not uncommon. There are few bodies which, when opened, do not exhibit the solvent powers of the gastric juice, the stomach at the large end being commonly in some degree digested. In some instances the diaphragm has been dissolved quite through by the contents of the stomach escaping.

"An Author."—We cannot comply with the proposition.

"Dr. Benson."—The numbers shall be forwarded as requested.

"A Constant Reader, Birmingham."—The name is not to be found in the "Directory."

"A Surgeon in General Practice."—Cases cannot be inserted unless duly authenticated.

"A Parent."—Lectures delivered in the Edinburgh schools of medicine will be received by the London medical corporations. The Scotch schools may be cheaper, but they are not better than the English.

"Querist."—In a gunshot wound inflicted after death no blood is effused, unless the ball happen to strike a vein.

"P. B."—The library of the Linnean Society is open to the public every Monday, Tuesday, and Thursday; and the Museum on Wednesday and Friday, from twelve to four o'clock.

"Aliquis."—The deception will not succeed.

"Chemicus."—The institution possesses a good laboratory and a copious library.

"Homo."—The subject is unsuitable for a medical journal.

"Mr. Unwin."—Communication received.

"M.D., F.R.S."—The statements are interesting. We will publish if permitted.

"H. R."—Mr. Yearsley.

"Dr. S. A. Bardsley, Manchester."—Communication received.

"Paternoster."—We do not know that the company allows it, but it is frequently done.

"Mr. Alexander Stooks, Liverpool."—The case received.

"Mr. Thomas Hunt, St. Day, Cornwall, 'On Compound Fracture of the Leg,'" received.

"Mr. E. Seaton, 44, Sloane-square."—Report received.

"Philomathes."—2. Hippocrates understood that the existence of fluids in the chest might sometimes be ascertained by applying the ear to that region. 3. M. Double, in 1817, recommended the application of the ear to the thoracic region as an excellent means of diagnosis; and two years afterwards Laennec published his celebrated treatise on Mediate Auscultation. 4. Yes. 5. 1819.

"Dr. T. H. Barker, Bedford."—Communication received.

"Agathos."—1. Mr. Briggs, late surgeon to the Lock Hospital. 2. Whitehead's.

"Dr. R. B. Reid."—The request shall be complied with.

"A Dublin Surgeon."—Yes.

"An Irish M. D."—"On the Necessity of Professional Unity" received.

"H. T. D."—The prescriptions of the medical man were no doubt judicious, and his directions ought to be observed. A shower-bath is useful.

"Mr. W. G. Walton."—"Chelius," edited by South, and "Druitt's Surgery."

"A Subscriber, London," is thanked for his suggestions.

"Mr. Thos. Brown, Castle Donnington."—"A Case from Private Practice" received.

"P. S."—The Editor will oblige me by answering the following queries in his next impression:—1. Can an ex-officio guardian, *i. e.*, a magistrate, act as medical officer in the union in which he resides? 2. Can he do so in a union in which he does not reside? 3. Can his partner receive the appointment?

Letters and Communications have also been received from Celsus; H.; Dr. Knox; R. D.; A Surgeon; H. B., a Pupil; Mr. C. T.; Obstetric; A Young Medical Pupil; Reprehensor; Hygiene; An Old Friend; Patronus; A Medical Assistant; Cautious; L. G., Hackney; Psychologist; A Hospital Surgeon; A General Practitioner, Leeds; Dubitans; Mr. Fincham; An Unfortunate Member of the Profession; Dr. G. Harrison; Mr. Budge; A Scotch Surgeon; Chirurgus; A Dublin Apothecary; Fair Play; A Surgical Pupil; Quiz; Junius; Amicus; Medicus, Glasgow; A Cambridge Student; Mr. Tevesham; Delta; A Sanitary Reformer; Adolescens; Pathologist; An Author; Dr. Benson; A Constant Reader; A Surgeon in General Practice; A Parent; Querist; P. B.; Aliquis; Chemicus; Homo; Mr. Unwin; M.D., F.R.S.; H. R.; Dr. S. A. Bardsley, Manchester; Paternoster; Mr. Alexander Stooks, Liverpool; Mr. Thomas Hunt, St. Day, Cornwall; Mr. E. Seaton, No. 44, Sloane-square; Philomathes; Dr. T. H. Barker, Bedford; Agathos; Dr. R. B. Reid; A Dublin Surgeon; An Irish M.D.; H. T. D.; Mr. W. G. Walton; A Subscriber, London; Mr. Thos. Brown, Castle Donnington; P. S.; Mr. Brown, Chichester; Mr. Jenkins, Gosport; Mr. Drummond, Brighton; Mr. Stuart, Dunse; Mr. Smith, Crawley; Mr. Freeman, Sexmundham; Mr. Pilsworth, Maryborough; Dr. Moses, St. Asaph; Mr. Clarkson, Whitby; Mr. Fookes, Stalbridge; Mr. Crostan, Chowbent; Mr. Aitbutt, Batley; Mr. Braddon, Upton-on-Severn; Mr. M'Cheyne, Dumfries; Mr. Jeffrey, Heavitree; Dr. Ellis, Dublin; Mr. Ball, Buralum; Dr. Seward, Cahirconlish; Mr. Windsor, Manchester, &c. &c.

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No. 448. SUMMARY. April 29.

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ORIGINAL LECTURES.

LECTURES ON SOME OF THE MORE IMPORTANT POINTS IN SURGERY.

By G. J. GUTHRIE, Esq., F.R.S.,

Read by Mr. HANCOCK, Surgeon to the Charing-cross Hospital, and Lecturer on Anatomy and Physiology at the Royal Westminster Ophthalmic Hospital.

Lecture XII.

ON WOUNDS AND INJURIES OF THE CHEST.

Consequences of traumatic inflammation of the chest; effusion; condition of the lungs and pleura; mode of cure when an operation is performed early; use of auscultation in such cases, or when a ball is rolling about on the diaphragm; cases by Gerard and Dupuytren; M. Baudens on the encysting of balls, or splinters of bone, within the chest; M. Baudens on the withdrawal of fluids from the chest by a syringe; cases by M. Baudens; necessary to have a dependent opening; danger of puncturing the abdomen; experiments at the College of Surgeons and Charing-cross Hospital; results of these experiments; anatomy of the parts concerned in the operation; mode of operating. Wounds of the diaphragm: *cases by Paré, Sennertus, Hollerius, Guillemeau, Chevreau, and Mr. Guthrie; Baron Percy's cases of rupture of the diaphragm; Baron Percy on the diagnostic signs of rupture of the diaphragm; case of Capt. Prevost; cases by Mr. Guthrie; M. Baudens' case; case of Sergeant Barry; Dupuytren's case; Mr. Robinson's case; case after the battle of Sobraon; Baron Larrey's case; M. Baudens' cases; symptoms of wound of the diaphragm.*

I have noticed in Lecture IV., on empyema, the symptoms accompanying the formation of matter in the pleura; in Lectures V. and VI. I have enumerated the morbid appearances which are discoverable after death, and the operations to be performed in ordinary cases for the relief of the sufferers. The last lecture contains several very important cases, highly interesting on all points, whether ending in death or recovery. In Case 129, that of General Sir Robert Crawford, the ball had just impulse enough to penetrate the wall of the chest, and fall down on the diaphragm, causing death by the inflammation which ensued, followed by effusion. Case 131 shows a ball rolling about on the diaphragm removed by cutting out a portion of the rib; and Case 21 is an excellent example of a small ball descending, by ulceration through the lung, by its own weight, until it fell on the diaphragm. Cases 118, 119, 121, 125, 126, 127, 128, 130, are instances of balls either falling or being about to fall into the cavity of the chest, or being gradually dislodged from the bodies of the vertebræ, or the inside of the ribs, by the suppurative process, which, after having loosened, at last permitted them, under some sudden or peculiar movement, to slip out and fall on the diaphragm into the angle formed by it and the last ribs and spinal column; where they have been sometimes found surrounded by purulent matter, or enveloped by coagulated lymph or false membranes, the result of long-continued disease.

It has been shown in several places, that the first important effect of inflammation in these cases is effusion, followed by the formation of matter, which compresses the lung against the spine and back of the chest, or other part to which it may be attached, until it becomes nearly impermeable; whilst the lymph or fibrine deposited on and around its pleural covering binds it down, and affix it so firmly to the adjacent parts as to prevent its expansion to any extent, even if the pressure of the surrounding matter should be entirely removed. The pleura lining the chest becomes thickened, sometimes to more than an inch in extent, and Nature makes some efforts, which are usually unavailing, to relieve herself by an external opening. The thickened pleura becomes honeycombed by ulceration, which extends deeply to the ribs, portions of which as well as of the vertebræ may become carious, separate, and fall into the chest; and at last, if the patient should live so long, an external swelling indicates the approach of the matter to the surface, which may in this way be discharged for the moment, the opening remaining as a drain for the matter, which ultimately exhausts and destroys the patient.

If a cure should be effected in such a case at an earlier period, by a favourable opening being made into the cavity of the chest, and the gradual draining off of the matter secreted, the lung can rarely again expand, although perfectly permeable to air, if bound down by its lately formed investing pseudo-membranes; and a cure can only be effected by the elevation of the diaphragm, which may ascend as high as the fifth rib, by the bulging of the mediastinum into the affected cavity, by its drawing along with it the heart, and by a change in the form and character of the ribs, by the flattening of one and the protrusion of the other, occasioning a certain degree of deformity of the side, by which the almost utter obliteration of the affected cavity is accomplished; the lung of the opposite side supporting life by its augmented and puerile respiration. Under such circumstances it must be obvious that these evils can only be prevented by an early operation capable of giving a ready exit to the matter secreted, and to any foreign substances which may have fallen into the cavity of the chest.

The use of the ear or of the stethoscope, which was unknown until after the termination of the Peninsular war, has materially simplified the manner of obtaining information in injuries of the chest; and I have little doubt that the presence of a ball rolling about on the diaphragm can be ascertained by its means at an early period, so as to admit of an operation being undertaken with confidence for its removal; whilst the knowledge acquired by auscultation and percussion, of the filling of the chest by fluid, whether serous, bloody, or purulent, is incontestably demonstrated by them. The presence of a ball, or of any other foreign body, decides the question, I apprehend, as to the place where the opening into the chest should be made; and on this point the information derived from the practice of the French surgeons in Algeria is important.

Case 134.—A captain of grenadiers, forty years of age, was wounded at the siege of Barcelona by five balls in the chest, three on the left and two on the right side. He was blooded twelve times during the first four days. On the eleventh day, the sloughs having separated, he spat blood in quantities, and was bled again seven times in three days. On the thirteenth day the spitting of blood had ceased. On the eighteenth a slough was removed from one of the wounds, and the finger introduced into the cavity of the pleura. During the next ten days similar sloughs were withdrawn daily from both sides of the chest. When the sloughs ceased to be separated, the discharge became simply purulent, the upper wounds healed, and one fistulous opening remained on each side. On the fifty-second day the patient complained of pain in the right side, about the second and third false ribs, which part was swollen, and ultimately formed an abscess, which was opened, and a pint of blackish fetid matter discharged. Gerard, therefore, introduced his finger into the opening, felt, he believed, the peritoneum, and the diaphragm, in which there appeared to be an opening. On withdrawing his finger he discovered the ball situated between the peritoneum and the transversalis muscle, and extracted it; he then passed a sound through the opening in the diaphragm into the chest. The cure was completed in seventy-one days.—(Gerard in Percy, page 231.)

Case 135, by MM. Marx and Paillard, from Dupuytren.—Captain Hesse, late of the 18th Hussars, who had been under the care of Mr. Guthrie, after the battle of Waterloo, for a wound of the right elbow, which arm he could not use, was struck in a duel by a pistol-ball, which entered the left side and lodged. He fell, and suffered great pain in the breast, the clavicle, and back of that side, but did not spit blood. These symptoms were relieved by the loss of from eight to ten pounds of blood during the first four days, when his friends thought him better, but he himself said he felt the ball move in his chest. On the fourth day he awoke from a distressing dream, shivering, and in great pain, suffered from paralysis of the left side of the face, and died in four hours, in inexpressible anguish. The ball was found, on dissection, to have grooved the inside of the upper part of the sternum, breaking the head of the right clavicle, and splitting the bone in its length. Some portions of his clothes had been carried thus far by the ball, which then injured the inferior part of the brachial plexus of nerves. The ball was then reflected, and fell into the chest, where it was found lying in about ten or twelve ounces of blood, partly fluid, partly coagulated.

Auscultation does not seem to have been had recourse to, and no effective means were taken for the relief of the patient, save bleeding.

The practice of surgery on this point did not improve from Gerard and Percy to Dupuytren.

M. Baudens, whose labours I refer to with great approbation, says, in his "Clinique des Plaies d'Armes à Feu," Paris, 1836, that he has seen splinters of bone, and even a ball, surrounded by a cyst formed by the pseudo-membranes of inflammation, cut off from the general cavity, and confined in the angular space formed behind between the rib, the diaphragm, and the spine. He mentions three cases of this kind, which must, nevertheless, be very rare, and is desirous of considering the observation of a ball, or of splinters of bone, encysted in this manner as his own—as well as the proposal to remove them, or any other foreign body, by an operation in the interspace between the eleventh and twelfth ribs near the spine.

He reintroduced the method of drawing up matter from within the chest by a sucking syringe or pump, not used occasionally, as recommended by Sabatier and others even before him, but retained permanently on the part. This proceeding may have been of some use in certain cases, nevertheless, I do not place any reliance upon it; unless accompanied by a dependent opening, through which the retained matters may readily escape, when most likely the sucking pump will not be of any great utility.

Case 136.—In a wound of the chest, between the second and third ribs, M Baudens introduced a *sonde à dard*, such as is used in the high operation for the stone, and made it project behind between the eleventh and twelfth ribs. He cut down upon this, and extracted a ball and some splinters of the rib. The wound thus made was

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then closed, the upper wound was sucked dry daily by a pump, and the patient recovered in forty days.

A very brilliant result of modern surgery, but which would not have taken place if there had not been a dependent opening for the complete discharge of the matter secreted.

Case 137.—An artilleryman, twenty-two years of age, was wounded on the 12th of October, 1833, at Bougie, in Algeria, by a ball, which entered the right side of the chest, about an inch from the sternum, fracturing the third rib, and passed out behind, three fingers distant from the spinous process of the sixth dorsal vertebra. He was sent to Algiers fourteen days afterwards, suffering from acute pleuro-pneumonia, the entrance of the ball giving exit to an abundant and fetid suppuration. On the 1st of November the wound in the back was healed; that in front gave vent to large quantities of matter, and the finger, on being introduced into it, discovered two loose splinters of bone, which were removed. In order to abstract from the chest the retained matter, M. Baudens had recourse to a small pump, which he affixed to the wound by the aid of a large gum-elastic canula, which not only sucked up all the matter, but actually caused the ribs to be drawn inwards. This was used for five days, and some pieces of cloth were drawn out with the matter, and even a fly, which had got inside by accident. The wound was then closed, but matter re-formed in two days, and two quarts of offensive pus were withdrawn by the pump, used as before. Eight days afterwards the patient died. The third rib was broken in front, the sixth behind; some splinters pointing inwards, and retaining between them a piece of leathern belt. The lung, traversed in its middle part, showed the track of the ball lined by a smooth black membrane containing pus. The pleura was in places half an inch thick, spotted with gangrenous points, and containing a large quantity of very offensive matter.

If, instead of pumping out the chest, the posterior wound had been reopened, the sufferer might, I apprehend, have had a better chance.—G.

Case 138.—A., 54th Regiment, was brought to the hospital at Algiers on the 22nd of October, 1833, wounded eleven days before by a ball, which, having broken the right clavicle, was lost in the chest, without any sign of effusion having taken place, and he appeared to be going on well, until suddenly he complained of pain about the middle of the sixth rib, which could not be removed by the means employed, and was accompanied by a great discharge from the wound. On the 10th of November he died. The clavicle and first rib were fractured, and an abscess had formed behind this part the size of a hen's egg, containing several splinters which had stuck in, and afterwards been separated from the lung. The ball had passed from above downwards and outwards, forming a sinus, which terminated at the middle of the sixth rib, to which this part of the lung was attached; the posterior three-fourths of this canal were closed, the anterior fourth contained two splinters of bone, one of which was about to fall into the abscess in front. The sixth rib was broken, although it had not been perceived during life, and a small digital cavity was formed at this part in it by the ball, surrounded by portions of lymph floating loosely from its edges; from this the ball had been detached, and had given rise to the inflammation which destroyed him. The ball had fallen on the diaphragm, where it was lying loose surrounded by a quantity of purulent matter.

M. Baudens says himself, and rightly, that the operation of opening into the chest should have been performed in the eleventh intercostal space, and that the wound in front should have been enlarged.

Case 139.—M. Baudens relates another case, in his eleventh observation, in which the posterior wound, situated near the angle of the tenth rib, had healed; the anterior one, half an inch below the clavicle, giving issue to an abundant and weakening suppuration. The lung above this was permeable to air, but the respiratory murmur could not be heard below it. To draw off this offensive fluid, he adapted an empty caoutchouc bag to a gum-elastic canula, which he affixed against the orifice of the wound, and then sucked out six pints in five days. Some days later the wound behind reopened, and a piece of bone was discharged from it.

It is possible that this reopening, which was as good as an operation for empyema, aided materially in the recovery of the patient. Two years afterwards the man was seen in good health.

The desire to have as dependent an opening in the chest as possible has been manifested by all surgeons of experience in these injuries, and the interspaces between the ninth and tenth, and between the tenth and eleventh ribs, have been often selected for this purpose; but as the operation was done at, or as nearly as possible in the, middle third of the chest, with the trocar, the abdomen was as often opened as the thorax, and death was frequently caused by the operation, even if it would not have been occasioned by the disease. To prevent or to avoid this evil, M. Baudens advises its being performed at three fingers' distance from the spine, by incision, and he says he has frequently done it with success, although he does not give any circumstantial directions as to the operative method to be pursued, to which I, therefore, turned my attention, and caused several experiments and dissections to be made in the workroom of the College of Surgeons, in which Mr. Stanley, Mr. Arnott, and Mr. Quekett took great interest, and also at the Charing-cross Hospital, by Mr. Hancock and by Mr. Canton, with a similar result; vis.:—

1. That a trocar and canula pushed in between the eleventh and twelfth ribs, in a diagonal direction upwards, and on a line with the angle of the ribs generally, will in the dead body invariably enter the cavity of the chest without injuring the diaphragm.

2. That the same operation performed on the living body would, in all probability, if done at the moment of expiration, first enter the thorax, then pierce the diaphragm, and thus open into the cavity of the abdomen—a difference in result to be explained by reference to the anatomy and physiology of the parts concerned, and showing that the operation, when required on man, should always be done by incision, and not by puncture with the trocar and canula.

On examining the lower part of the chest from within, after removing the pleura, the diaphragm is seen forming the boundary between the thorax and the abdomen, commencing from the transverse process of the first lumbar vertebra, and forming an arch under which the upper part of the psoas muscle passes (the ligamentum arcuatum proprium). From this part extends another aponeurotic arch along the lower border, and to the end of the last rib, called the false ligamentum arcuatum (ligament cintré du diaphragme of Cruveilhier), which is nothing more than the upper edge of the anterior layer of the aponeurosis of the transversalis muscle, folded upon itself in all its extent. The diaphragm is afterwards attached to the lower border of the twelfth, and in succession to the eleventh, tenth, ninth, eighth, seventh, and sometimes to the sixth ribs, counting from below upwards. The external intercostal muscles are distinctly seen between the ribs, extending from the spine until they meet and are concealed by the fibres of the internal intercostal muscles, near the angles of the ribs. The vessels and nerves, after passing on the external intercostal muscles, subsequently run between the two.

The lower intercostal arteries arise from the aorta on each side, and before they enter the space between the ribs give off a branch passing backwards to the vertebral canal and the posterior muscles of the spine. The eleventh and twelfth intercostal arteries, covered at first by the pillar of the diaphragm, ascend on leaving the vertebræ to reach the under edges of the ribs, and are accompanied by a vein and nerve. The tenth intercostal artery, and those immediately above it, run almost horizontally and nearly in the mid spaces of the ribs, as far as their angles, at which part a small artery is commonly given off, which descends from the main trunk at an acute angle to the rib below, and may be injured in opening into the chest, and be, perhaps, mistaken, in operating, for the intercostal artery itself. From the angles each artery runs in a groove in the under edge of the rib as far as the anterior third, when they all become very much diminished in size, and, leaving the groove, run in the middle of the intercostal space until lost in their different anastomoses with the branches of the epigastric, phrenic, lumbar, and circumflex iliac arteries.

In making an opening into the chest between the tenth and eleventh, or between the eleventh and twelfth, ribs, the artery will not be injured, provided the opening be made below the middle of the intercostal space, which is wider between the eleventh and twelfth ribs than between those above it. The vein is situated above the artery, and proceeds to the vena azygos major on the right, and to the smaller azygos vein on the left, side.

The intercostal nerves are the anterior branches of the dorsal nerves, and lie below the arteries under the pleura upon the external intercostal muscle, until they approach the angles of the ribs, where they enter between the layers of the intercostal muscles.

It is worthy of observation that the pleura is necessarily continued over the inside of the twelfth rib, to line the different attachments of the diaphragm, and that an incision may always be made into the chest above this point, if done carefully.

On removing the integuments of the back, covering the muscles and the lower ribs, the broad expanse of the latissimus dorsi is brought into view, extending from the ilium and spine upwards and outwards, and covering all the parts of importance beneath, in the operation to be described. On the removal of the lower part of this muscle, the serratus posticus inferior is seen, of a somewhat quadrilateral form, arising by a thin aponeurosis, common to it and to the latissimus dorsi, from the spinous processes of the three superior lumbar vertebræ and two inferior dorsal, and proceeding upwards and outwards to be inserted, by four flat tendinous digitations, into the four lower ribs.

If this muscle be separated from its origins and turned outwards, or divided in the middle, and its two portions reflected, the posterior spinal or long muscles, running in and filling up the groove or hollow of the side of the spine, will now be distinctly seen, constituting what the French call the fillet, and composed chiefly of the sacro-lumbalis, and the longissimus dorsi muscles—sometimes considered as a whole, under the name of erector spinæ, or the sacro-spinal muscle. This, which forms a thick mass over the beginning of the tenth, eleventh, and twelfth ribs, is not to be divided or interfered with, beyond a very few, at most, of its external fibres; the opening into the chest about to be made should begin at its external edge, and go through the external intercostal muscle, which is now exposed on a plane below it.

The eleventh and twelfth ribs, unlike all those which precede them, except the first, have only one surface of articulation with the corresponding vertebra, to which they are attached, instead of two facettes articulating, one with the body of the vertebra above, the other with that below. They form, and particularly the twelfth, a more acute angle with the spine than the others, which gives to them their greater degree of obliquity; whilst the freedom of their cartilaginous extremities enables the twelfth particularly to be depressed or separated by a moderate force from the rib above to a greater extent than at any other part, by which means a foreign body of larger size may be removed from between them more readily than elsewhere.

Operation.—The eleventh and twelfth ribs having been distinctly traced, and the obliquity of their descent from the spine having been

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clearly made out, the patient being, if possible, placed on a stool, with the upper part of the chest supported by a pillow on a table before him; an incision should be made, over the intermediate space between these ribs, three inches long, and slightly curved, through the integuments down to the latissimus dorsi muscle; and as the mass of long spinal muscles is usually three inches in width, and can in general be seen, the incision should commence two inches from between the spinous processes of the eleventh and twelfth vertebræ, and be continued obliquely or diagonally downwards in the course of the interspace between these ribs. The latissimus dorsi and the serratus posticus inferior muscles being divided first at the upper part where they cover the longissimus dorsi, or the long spinal muscular mass alluded to, its edge becomes apparent, and from this point the latissimus and the serratus are to be further divided downwards. The external intercostal muscle being thus exposed, its fibres should be scratched through or separated, in the middle of the interspace between the ribs, which can now be seen as well as felt, so as to admit of a director being introduced below the muscle, on which it may be carefully cut through, as well as any fibres of the internal intercostal muscle, which may extend as far as the wound thus made. The pleura will be then exposed, and, if the cavity of the chest contain fluid in any quantity, it can scarcely fail to project in such a manner as to convey to the finger the assurance of its being beneath. An opening may now be carefully made into it, at the upper part of the incision close to the external vertical fibres of the spinal mass of muscles, at the moment of inspiration; and on the existence of fluid being ascertained by its discharge, the opening should be enlarged, a director having been previously introduced under the pleura, as far as may be thought necessary for the admission of the finger or any instrument which may be required.

The patient is desired to draw a full breath at the moment of puncturing the pleura, in order that the diaphragm may descend as low as possible; for, if there should not be any fluid in the chest, the diaphragm, in ascending during expiration, might be applied to the inside of the pleura lining the chest as high even as the fifth rib, counting from above, and might easily be divided with the pleura, if great care were not taken at this part of the operation, or if a trocar and canula were incautiously thrust in at such a moment. Whenever the smallest instrument of this kind is used, even in an explorative operation, it should only be introduced during the process of inspiration.

The preparations alluded to, as illustrative of these several points, are to be seen in the Museum of the College of Surgeons: one shows the rather rare anomaly of only eleven ribs; there is another of equal rarity in the College Museum, showing thirteen. In another experiment, in which a ball and about a pint of fluid were introduced into the chest, between the first and second ribs, it was subsequently found that a lengthened adhesion existed between the lung and the fifth rib, on which, as on a diaphragm, the ball and fluid rested—a fact which in the living body would have been distinctly pointed out by auscultation and percussion. In such a case the operation for the removal of the ball must be done above the rib to which the pleura may be attached.

War-office, April 25.—64th Foot: Assistant-Surgeon William Henry Short, from the 35th Foot, to be Assistant-Surgeon, vice Purdon, who resigns.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 29:—Thomas Alderson, Shotley, Suffolk; Richard Cokhurst, Bristol; James Kidd Dow, Islington; Charles Hanlen Gamble, Bamaccaple, Devon; Thomas Bridgeall Heath, Leek, near Manchester; Henry Thomas Spratt, Long-lane, Bermondsey.

ORIGINAL CONTRIBUTIONS.

SOME REMARKS ON THE TREATMENT OF GUNSHOT AND OTHER WOUNDS OF THE THORAX AND EXTREMITIES.

By Dr. KNOX.

(Continued from page 477.)

II. Perhaps my readers will next accompany me to a different field, of a very different character, no doubt—the frontiers of the colony of the Cape and Caffraria. Many severe cases of wounds occurred here, and as at sea, in the cases above described, the surgeon had no assistance generally from any professional brother. I shall confine myself chiefly to a few cases of wounds of the chest.

The Caffre frontier extended from the north of the Groote Visch Rivière, or Great Fish River, as I presume it is now called, to the Bavians Rivière, a station to the north of that most beautiful range of mountains whence the Koonap and Kat rivers take their origin; the distance was at least 140 miles. Along this extended and totally indefensible frontier, the troops were stationed in detachments, at varying distances from five or six miles to twenty, and even thirty or forty. If an accident occurred at any of these posts or stations, I had to be sent for by an express; hence a delay, sometimes of many hours, or even of an entire day or night, before I saw the case. This was, however, unavoidable. The first case I shall speak of occurred at the station called Grote Wilhelm Princelows, close to the Kahaberg.

A small patrol party had been, as usual, sent out after sunset to scour the roads and see that no stray Caffres were wandering about in quest of cattle. They encountered some persons in a mimosa forest, not far from the post. A sort of scuffle took place, and shots were exchanged. The party returned with one man badly wounded as was thought by the Caffres, but my own opinion was that, in the confusion, he had been struck by a musket-ball fired off by one of his own party. However this may be, I received early in the morning a report from the officer in command requiring my presence at that station without delay. The report was to this effect: that a private of the 72nd Regiment had been wounded whilst on patrol; that a musket-ball had entered the right side of the chest, passed through it, and had come out at the back; and, finally, that the man was in a highly dangerous state. This was the report I received. My readers will naturally suppose that I lost no time in riding to Grote Wilhelm. The distance was about thirty miles. On examining the wounded man, I called the attention of the officer in command to the following facts:—1. That the wound was on the left side, and not on the right, as was stated in his letter to me; 2. That it had not penetrated the chest, but, entering not far from the breast-bone, had passed under the skin for about four or five inches, and then made its exit at the side, and not through the back; 3. That the wound was not dangerous, nor was the soldier unnecessarily alarmed, or in a dangerous state. With a candour becoming an officer and a gentleman, the officer in command admitted at once the extreme incorrectness of his report to me, which he had written at the dictation of the non-commissioned officer, without himself inquiring into the case.

Results.—It may be laid down as a general rule that the less gunshot wounds are interfered with the better. Musket-balls, it is true, ought to be removed if possible, but they cannot always be discovered; and they are found occasionally in very odd places. Colonel Burton, who commanded at Ostend during the short but eventful enterprise of 1815, told me that he was wounded in Spain, and, having procured the aid of a surgeon, the medical man proceeded to probe, and dilate, and incise, until the colonel, losing patience, asked him what he was looking for? "The ball, to be sure," replied the surgeon. The colonel's reply was brief—laconic: "Why did you not tell me that sooner; the ball is in my waistcoat pocket." I like generally to tell a patient what I intend doing. I have known some useful information picked up in this way. To return to my patient: For a short time he was feverish, but never strongly so; the wound suppurated; some small portions of his dress escaped with the discharges, or were removed. He easily recovered, for the wound was at no time a dangerous one, notwithstanding its dangerous look. The opening at the side closed first, showing that the ball had entered from the front.

As the track of the wound was immediately over the heart, I had some doubts as to the propriety of applying to this wound the cold-water cure: a mode of treating most wounds and severe bruises incomparably superior to all others. I have always thought that this method of treating wounds and bruises has never yet been rightly understood, or at least not practised in our civil hospitals. I may be wrong, but this is my impression from what I have seen. The following case illustrative of the freedom with which cold water may be applied to wounds, and of the good effects following such a mode of treatment, I venture to submit to my readers, although it be not one of wounded thorax.

At the same station (Princelows) where the case described above had occurred, a patrol party returned hastily one evening in consequence of one of the party having accidentally fired a musket-ball through his hand. His account of the affair was this: Passing through a part of the forest of Bush, not far from the station, the party rested for a brief space; his hand was placed on the muzzle of the gun; a twig touched by his foot had reached and drawn the trigger; the contents of the gun (a ball cartridge) were driven through his hand. The whole affair was supposed by the officer in command to be intentional. The accident occurred at night, and I reached the station early next day. The ball had passed directly through the palm of the hand, breaking into fragments as it escaped on the back of the hand the metacarpal bones of the middle and ring fingers; portions of these bones of some size might be seen quite exposed on the surface. On examining the wound my first idea was to remove two pretty large fragments of the middle metacarpal bone which were quite exposed, but on touching them I found that they adhered strongly by soft parts to the surrounding structures, and so I resolved to let them alone; moreover, they might not be the only parts destined ultimately to come away as secondary sequestra. On consulting with the commanding officer whether I could have a sufficient number of orderlies to carry out a practice by which I felt certain the hand might be saved, and the soldier retained in the service, he informed me that to effect this he would place the detachment (sixty men) at my service. This was the practice I adopted:—The arm and hand were laid out of bed on a cushion, and loosely enveloped in linen; this was drenched or made quite wet with cold water, bucketfuls of which were directed to be drawn frequently from the adjoining cool stream, and not to be kept for any length of time in the barrack-room; with this cold water the linen covering the arm was directed to be kept constantly wet for three days and three nights, without the least interruption. Orderlies, relieved regularly every hour in the same way as sentries, were appointed for this duty, and the officer in command issued an order that he would try any of the orderlies by a court-martial who neglected his duty for an instant. It was also directed that the arm should never be for an instant withdrawn from its exposed position, or covered with the bedclothes. I remained at the post until next morning, in order to see how the case went on, when another express calling me away to some distant station, I did not again see the case until the close of the third day and night from the receipt of the wound. Both apertures were closing; the exposed metacarpal bones were no longer to be seen; there was no suppuration that I could perceive, and the slough at the entrance, or in the palm, was exceedingly

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small, confined to a mere ring. The wound was now dressed with simple cerate, and the arm put in a sling. In about three weeks he had entirely recovered, and soon after resumed his ordinary duties.

Reflecting on such cases—for I have seen several, and shall relate two others illustrative of this mode of treatment—and comparing the results with what I had seen and knew of an opposite mode of treatment, I confess that a sort of misgiving arose in my mind, whether the practice of surgery had on all occasions been of essential benefit to the wounded, and more especially as regarded the question of speedy and primary amputations of the limbs. We read in the *first* edition, if my memory be correct (for I quote from memory), of a work "On Gunshot Wounds," by the distinguished practical surgeon who now favours the *Medical Times* with the results of his great experience in gunshot and other wounds of the chest, that in the Peninsular war it was the practice of the British (and I fear also of the French) surgeon to amputate all hands injured as in the case just narrated, as they never did any good, and generally came to amputation at last, or, if preserved, were at least of no use to the person! The men, however, were not discharged from the service, but employed as scavengers and servants (helots), to do all the drudgery and dirty work of the camp and barracks! The reader may imagine as easily, perhaps, as I can, how many fine fellows were mutilated by such a practice, and how many useful limbs were wholly lost to their country. It was not held to be enough at that time to withdraw from the cultivation of the soil, from trade and commerce, arts and science, thousands of brave and excellent men; but when an unhappy man wished to escape from the most dreadful of all conditions—the being condemned to live in a barrack-room, and cut the throats of people with whom he had had no cause of quarrel for sixpence a day—and so deliberately fired a ball through his hand, in comes the surgeon and whips off his arm, cutting against time to show his dexterity! Verily, compulsory soldiership is a dreadful thing, and it is odd that mankind suffer it for an instant; nor is there anything more extraordinary in human history than the maintenance for a week, for a day, of the conscript laws of France by the present republican Government. Let but the public voice demand their instant repeal, and European wars must cease. The Frenchmen who desire of their own accord to seek "the tented field" are a mere handful compared to those who would prefer remaining at home quietly cultivating their fields and enjoying the blessings of domestic life. I hope that the passage I have just written may meet the sight of my most esteemed friend and first patron, the illustrious M. Arago, who first introduced me to the French Academy. Conscript laws and pressgangs are quite synonymous—savage despotism by land; revolting, brutal, beastly tyranny by sea.

But it sometimes happens that superior address outwits the best of surgeons and inspectors of hospitals—a fact which the following case will illustrate:—

About the year 1823 or 1824 I was requested to visit a tradesman, a printer's pressman (a trade, I believe, requiring very considerable muscular force of arm), an industrious, sober, and steady man, with a wife and family. To my regret I found I could be of little or no use to him. He was about the age of thirty-eight or thirty-nine, probably older; but, be this as it may, he was deeply affected with pulmonary consumption, and died some time afterwards. One day, whilst reckoning the pulsations at the wrist to judge of the effects of some remedies prescribed, I observed a rounded cicatrix a little above the wrist-joint. On remarking this to him he made me acquainted with his history. He had been a soldier; had served in the Peninsula, and been wounded in the arm with a musket-ball. Judging from the cicatrix, it appeared to me that the ball had penetrated a little to the inner side of the flexor radii, and, passing through in the midst of the great flexor tendons, had escaped on the back of the forearm, but without breaking any bones. He lost, of course, the use of the hand, and took care never to recover it. The man was a great favourite with his officers, and the surgeons took all possible care of him. From what I could learn, greater efforts could not have been made to restore the use of this soldier's hand if he had been a field officer; but all these efforts proved unavailing, as they were not the "fitting remedy." At last this appeared in the shape of a free discharge, a certificate of good character, and a pension; once more in his native land and at home, he recovered immediately the use of his hand, and worked for many years as a printer's pressman. Military surgeons must not always be disheartened at the want of success occasionally following their best efforts.

That a musket-ball should pass through the arm, amongst the flexor tendons on one side, and extensors on the other, the median and other nerves escaping unhurt, will not excite any surprise in the minds of those military surgeons who have seen service. I know not how the above case had been treated, but it had been treated judiciously; the surgeon, clearly, had been no admirer of hot poultices, nor of hot, steam, or vapour baths, such as I have seen used in civil hospitals, the surgeon all the time fancying that he was employing the cold-water cure! I have seen this delusion going on at least a hundred times. Before I return to wounds of the thorax, I shall take the liberty of mentioning a few more cases in proof of the superiority of cold water, as an evaporating lotion, to every other mode of treatment in wounds and bruises; and then I promise to return to wounds of the thorax, and shall then endeavour to show that there is a physiological element in the history of such wounds which the distinguished author of these lectures has not attended to, or not observed.

Case.—When stationed at Roodewaal, on the Great Fish River, my esteemed friend Surgeon L., in charge at that time of the troops stationed at head-quarters, and of the detachment, as well as of the regimental hospitals, wrote me that he would expect me on such a day in Graham's Town (a distance of about seventy miles), to assist him in two amputations of the forearm. The cases were these—A very fine young fellow, a soldier in the Royal African Regiment of Infantry, had received a gunshot wound in the hand nearly three weeks before we saw him together in consultation. The wound had been treated in the usual way, that is by hot poultices, to bring away sloughs of parts, which would in all probability never have run into sloughs, unless so favoured by the surgeon. The fore finger had been destroyed by the shot; the middle finger was so deeply implicated, fractured, and suppurating that it seemed impossible to save it; the palm of the hand (metacarpal segment of the hand) rent open and suppurating profoundly; he had hectic symptoms daily, but as yet had not suffered much loss of flesh. I represented to my most esteemed friend and earliest patron that the loss of the hand would be a serious loss to this poor young man—an amiable and good person, torn from his friends originally perhaps by the infernal game-laws, and so banished from home and friends by the accursed contrivances of a savage despotism established by law; that the condition of the hand was no doubt very bad, but not desperate; that by careful and judicious treatment we might save the wrist and at least two fingers and thumb, and that this as an instrument would be of great value to him in after life; and, finally, as it was the left hand, he might even remain in the corps if he so inclined. My most valued friend acceded at once to my proposal, and requested me to take whatever steps I thought fit. He naturally threw the case on my own responsibility. The treatment was very simple. As there was not a day or hour to be lost, I directed the poultices to be entirely removed. The hand and arm, nearly to the elbow, were carefully sponged and cleared of all filth (I mean the poultices), and of purulent fluids as far as they could be got at; next carefully examined for some small sequestra which were easily removed. Young surgeons who may read this will find it advantageous in future life to do all these little operations themselves, leaving as little as possible to orderlies and assistants—that is, if they are anxious to have it done and well done; so on this maxim I attended the above case. If the personal pronoun be not much used in the history of this and the subsequent cases, I am extremely desirous that the young surgeon understand that as few of the details of treatment as possible were left to orderlies or assistants. The ablest assistant may not understand your views; the merest orderly, being a man, may happen to think for himself. English soldiers seldom do, but still it occurs sometimes. After carefully cleaning the hand and arm, which I have reason to think had not been done for some time, my next care was to sponge every part for half an hour with dilute spirits and water; raise and place it on a firm pillow; envelop each part in a fine linen rag, giving to the whole a moderate support, and a fine linen bandage or wrapper loosely laid around the hand and forearm, but still enclosing it, enveloped all. This I wet with the same mixture of spirits and water, leaving directions that it should never be suffered to dry up until we again saw the patient. The improvement was most rapid; in a few days he was walking about. I persuaded Mr. L. to change the ward in which he slept, and not to allow any purulent matter to collect. Without any new attacks of inflammation, &c. &c., he ultimately recovered, saving a large portion of the hand.

Case.—The other case attended to was of an entirely different character, yet its history may be of use to some. The patient was a soldier of seemingly an enfeebled and naturally bad constitution; the right hand was in a great part covered with irritable foul sores, some of them penetrating amongst the tendons; an erysipelatous inflammation, all dark and almost livid, was spread over the back of the hand and several fingers, upwards also over the wrist; the middle finger was deeply broken up by foul sloughing sores, and the osseous phalanges were evidently carious throughout. My friend now asked me what I proposed doing for such a hand as that? Now, admitting the apparent specific and malignant character of the sores and surrounding inflammation, I did not see how the case was to be benefited by amputation, and I told my friend so. The treatment I proposed was to remove the middle finger; to dress the sores with a lotion of nitrate of silver twice a day; to keep that lotion applied to the whole hand for some time; to touch the worst parts with lunar caustic; to change the ward of the patient and to keep him as much as possible in the open air, treating him with full diet, and in all other respects as a soldier not sick, but hurt. The hand to be carefully cleaned at least twice a day, and seen to at least twice a day. To this treatment my friend offered the following objections:—The man's constitution was broken up (I think on the western coast of Africa, Sierre Leone, the Gambia, &c.); the sores were extremely irritable, and they bled so alarmingly when touched with a knife, or even roughly, that he cautioned me not to think of operating; for himself he would not touch the hand with a knife on any account whatever after what he had seen, but kindly added that I might have my own way by taking the responsibility on my own shoulders. I was never afraid of responsibility, and immediately removed the finger in this way. Aware of the hemorrhagic tendency of the sores, I passed a slightly curved probe-pointed bistoury by an opening at the middle phalanx upwards towards the metacarpo-phalangeal joint, calculating from what I felt that the thoroughly rotten finger was attached, properly speaking, to the hand merely by the lateral and anterior ligaments. This idea proved the correct one. The ligaments were very cautiously divided, and the three bones withdrawn from a sheath, as it were,

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of sloughing dark mass I had no disposition to touch. Nitrate of silver was then used as described above, and the case ultimately recovered, the hand being preserved.

Case.—At a post called Kriegers, on the confines of Caffraria, a dangerous station at that time, and quite open to attack on all sides, we had a small detachment of troops, under the command of a junior officer. This gentleman had the misfortune to quarrel with a Dutch farmer, who, taking advantage of the presence of the troops as a safeguard for his flocks and herds, located himself close to the soldiers' huts, A sentinel was placed, by the officer's orders, on the cattle place, but the farmer insisted on entering "the kraal," or enclosure, to bring out some of his cattle; the sentinel had received orders to suffer no one to pass; so, in the scuffle, the bayonet of the soldier was run through and through the farmer, entering close to the inner edge of the deltoid muscle, about an inch and a half below the collar-bone, and passing out at the back close to the axillary margin of the scapula. No hemorrhage followed. The bayonet, I think, must have passed between the convex surface of the thorax and the great vessels, glancing, perhaps, from off the surface of the second rib. But, however this may be, Mynheer Vandyke, though a young man, full of flesh and blood, was prudent and careful; he followed strictly my advice, which was very simple. My own station was about three or four miles from Kriegers Post; but I informed him that, should any pain or other dangerous symptom arise, I would visit him at an instant notice, night or day. This quieted him. Linen rags dipped in cold water, to which had been added a few drops of Goulard's extract, were applied over the shoulder, lower part of the neck, and upper part of the chest. Directing him to avoid a current of air, I yet recommended him to seek the free air as much as possible. Absolute rest and the most temperate diet were recommended, and strictly adhered to. He recovered without a single bad symptom. Had he fallen into the hands of my old and esteemed friend Baron Larrey, judging from what I so often witnessed in his practice at the Gros Caillioux and elsewhere, we should, I fear, have had the orifices of both wounds *débridés*, scarified with tolerably deep incisions all around like the spokes of a wheel, cupping-glasses, &c. That my patient would have been as safe, or even safer, in the illustrious baron's hands—(illustrious by his great qualities, noble services, and good actions, and not because he happened to be a court flunkey)—I do not in the least doubt. All I claim is the having saved him a good deal of unnecessary suffering.

But, if the French practice be occasionally too active in the matters of bayonet thrusts and *coups de sabre*, there is another practice equally to be condemned. I shall venture to call it the *laissez faire* practice, which, I believe, answers admirably in political matters, but is essentially pernicious and to be condemned in matters of surgery. To obey orders is the first requisite of a soldier; it is usually added, "to obey all *lawful* orders." This loophole will not excuse a man from firing on his brother in case of meeting him in popular *émeute*, as at Berlin, where human nature, no longer able to bear with the savage legal despot, rises in arms against him. Nevertheless, it is a kind of loophole for some, but a very poor one. I am reminded of this by the above case. It was *against orders* for the surgeon to be absent from his post on any pretence whatever, excepting when called away *on duty* to some other station. It was *against orders*, then, for me to leave the post of Roodewaal to visit this Dutch farmer, who was merely a civilian, and whom I was not called on to attend. That there was no other surgeon within twenty miles of the spot, civil or military, made no difference. The reader will readily imagine that, when sent for by Vandyke from Krieger Post, I went *instantly*. The accident was in the meantime reported to head-quarters, and an order was sent up from Graham's Town, *two days afterwards;* that the officer commanding the frontier directed me to proceed without delay to the post of Krieger to see to the case of a civilian who had been wounded; and that I was hereby relieved from any blame for leaving my post whilst on this duty. The whole affair was a solemn farce, as all such orders are opposed to the great dictates of humanity.

Case.—The disturbed state of Albany and of the adjoining district or province of Unterhagen required, at certain times, that an escort, strong or weak according to circumstances, should be sent with all waggons travelling between Algoa Bay and Graham's Town; more especially if these waggons were on Government service. Accordingly, a corporal and three men were directed to proceed from the Bay, as it was called, to Graham's Town, escorting one or more waggons; I forget or, in fact, took no notice of their number. These men were coloured men, of the Hottentot race, and belonged to the Cape Regiment of Infantry. On reaching Unterhagen, their first day's march, the party entered the guard-room by one door at the moment another party, coming the opposite way, entered by the opposite door. They might be apart about thirty feet. Of the party arriving from the direction of Graham's Town, one, taking his musket from his shoulder, struck the butt on the ground with the muzzle sloping towards the roof at a moderate angle; the gun went off; the ball with which it was loaded struck a large spike nail in the rafters, and, descending nearly at the angle at which it ascended, entered the forearm of one of the men arriving from Algoa Bay; penetrated through his clothes, and buried itself in the mass of the supinator longus and radial extensors of the right arm. The corporal in charge applied immediately to a surgeon. A search was made for the ball, but unsuccessfully, the surgeon doubting altogether that any ball had entered the arm; if so, he said, it would come out again in due time; so, wrapping the arm up in a bandage and lint, he recommeuded the man to proceed to head quarters, Graham's Town, where there was a general hospital, and he was sure to be attended to. The distance marched by this man in this state must have been fully 70 miles; I think it was more. On reaching Graham's Town, instead of proceeding to the hospital, about a mile distant, the corporal thought it best to bring the wounded man directly to me; and, as my servants had orders never to delay an instant in informing me of an accident or urgent message, they did what they had often done before, awoke me, informing me at the same time that the wounded man was at the door.

Whilst the wounded man undid the dressings and exposed the wound, I learned the beforementioned particulars from his comrade. The appearance of the wound when exposed, told me its whole history, and that the ball or a portion of his dress was in it. Ragged and jagged on its edges, it had assumed a greenish colour; the arm was swollen and inflamed, but not remarkably so. The probe assured me that a hard body lay about an inch from the surface, which must be the ball, and after again touching it with the long forceps, introduced to the profession by Baron Percy, I with some difficulty raised up one extremity of the ball, and so extracted it. Its shape tallied exactly with the description given of the accident; on reaching the nail in the roof, it had been cut nearly but not quite into two equal portions, which still adhered to each other. In this way, and being so directed and weakened in its impetus, it broke no bones, nor did any other mischief, further than reaching the radius on which it lay. A poultice for twelve hours cleaned the wound, restored healthy granulations, and the wound did well under clean rags and simple cerate. The *laissez faire* practice of my surgical friend at the Bay always does mischief in such cases. It is better to be too active than to do nothing. The first of all surgeons that ever lived (for such I esteem Mr. John Bell to have been) has explained all this in works which are or ought to be classical.

Case.—I did not see the following case; it was told me graphically by one of the actors. A soldier, in the prime of life and youth and health, was discharging his musket, probably overloaded; it burst in his hands, and seriously injured the left. Fingers, no doubt, were blown away, the palm and thumb torn up; but I did not see it, and so shall not attempt to describe it from memory. A surgeon was sent for from a neighbouring post (the case occurred on the Caffre frontier). This worthy man was of the olden school in all things; he prescribed for the patient a good bottle of port wine, which was drunk immediately; and he sent for his surgical instruments. I will not say whether the wounded hand had been looked at or not. I have no doubt it was bad enough, and to have applied cold water to such, or to any case whatever, would have sounded to this surgeon's ears as strangely as if you had proposed to heal the wound by the royal touch.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF MEDICINE.

Meetings of April 11 *and* 18; Professor Royer Collard in the Chair.

A New Instrument for Craniotomy. By Dr. Brémond, Jun.—M. Capuron reported upon a new instrument proposed by Dr. Brémond for this operation. Any description we could give would convey but an imperfect idea of its nature; but it possesses, according to the learned reporter, various advantages. It can, in the first place, be applied to any part of the head, even to the palate; its use is not fatiguing to the operator, nor is it in any way perilous to the mother. The report was, therefore, favourable to the inventor.

Theoretical and Practical Researches on Purgatives. By M. Mialhe.

In the history of the various purgatives, the author endeavours to establish that the action of the greater number is due to chemical combinations and decompositions. He believes it is proved that it is proportioned to the solubility and the coagulating powers of each drug; also to endosmosis; to the secondary chemical reactions which take place in the system under the influence of acids, of alkalis, of chlorides, &c.; and in proportion with a certain degree of mechanical irritation occasioned by the contact of insoluble substances.

According to the author, this classification allows us to account for the preference which experience teaches us to give in peculiar maladies to certain medicines; he distinguishes purgatives in two classes, viz., general and special. The former exercise their action upon all parts of the digestive tube; the latter affect only a limited portion of the same organ.

He again subdivides purgative drugs into five sorts:—

1. Soluble and coagulating substances which combine directly with our tissues, and irritate them powerfully, *e. g.*, corrosive sublimate, nitrate of silver, croton oil.

2. Soluble but not coagulating medicines, acting by endosmosis as well as by sapidity, such as the citrate and sulphate of magnesia, the sulphate and phosphate of soda, Rochelle salts, manna.

3. Soluble and not coagulating drugs, which act only in consequence of their sapidity, by which mucous secretions are sympathetically increased—for instance, colchicum and colocyth.

4. Substances naturally insoluble, but which may become soluble when admitted into our system—for instance, calomel and resins.

5. Insoluble bodies which can neither be modified nor absorbed, and which cause mere mechanical irritation.

The Climate of Africa. By M. Boudin.—Since the year 1830, Algeria has cost France upwards of £600,000, and the lives of more than 100,000 men. The army, raised to that number, annually loses from disease 7000 soldiers; and, after efforts which have lasted eighteen years, Algeria

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does not contain 10,000 agriculturists. The produce of the soil is quite insufficient to the support of the European population: the price of corn grown on the spot being nearly double that of corn imported from Odessa. In France the tables of mortality show in a twelvemonth an average of 24 deaths in 1000; in Algiers the number reaches 36 in 1000; in Blidah, 66 in 1000; and in El-Arouch, 141 in 1000. These facts militate strongly in favour of the frequent renewal of the troops.

ETIOLOGY OF TUBERCLES. BY DR. WANNER.—In a paper published some ten years since, the author had already emitted the opinion that tubercular matter was chiefly due to the absorption of calcareous substances. Having heard it stated that consumption was unknown in the province of Sologne (dép. du Loir et Cher), M. Wanner repaired to that country, where he resided fifteen months; and his researches proved to him the correctness of the report. In a certain portion of the province there exist neither consumptive, scrofulous, nor calculous patients. In that region the soil is composed of silex and alum to a depth of 80 mètres. The vegetable earth is very shallow, and contains no traces of lime. From these and other facts the author concludes that tubercles are due to the calcareous principles contained in the food or in the drinks.

TREATMENT OF PNEUMONIA BY THE INTERNAL ADMINISTRATION OF CANTHARIDES IN LARGE DOSES.

The "Annales de Thérapeutique" publish extracts from a memoir, by Dr. Mendini of Verona, on the hyposthenic influence of this medicine in diseases of an inflammatory nature: twenty cases of pneumonia are brought forward in illustration. The medicine was exhibited in the following manner:—15 or 18 grains of the pulv. lyttæ being boiled in O. xij. of water, the same quantity of emulsion of amands is added, and the entire was taken in the course of twenty-four hours. Under the influence of the medicine the pulse constantly fell, and the thoracic symptoms gradually gave way. Such, at least, is the assertion of Dr. Mendini, which the "Annales" seem to consider correct. In the twenty cases, of which ten are published with very insufficient details, we find, however, that repeated venesection was used in every instance, and to a very considerable amount; we can, therefore, fairly remain in doubt as to the alleged hyposthenic action of the drug. The following case is an instance:—

B. G., aged forty-six, of a venous (?) constitution, subject to frequent inflammations of the chest, was since five days labouring under marked dyspnœa, difficulty in lying on the side, pain in the left mammary region; cough, bloody sputa, and high fever were also present. He was bled eight times, the blood being constantly covered with a fibrinous coating; and every day emulsions, with eight, ten, and twelve grains of kermes, were exhibited. Afterwards the patient took in one day fifteen grains of cantharides, and was troubled with severe dysuria. The dose was increased to eighteen grains, and the feverishness decreased and the expectoration lost its specific appearance. Two more doses were exhibited, and the patient recovered rapidly.

Now this case, to which the others are precisely similar, does not by any means satisfy us. The patient was bled eight times, and took during three days large doses of antimony—a treatment which is often successful in the most severe cases of pneumonia. Cases of this kind do not seem to us a sufficient demonstration; and for the present, at least, we can have only slight confidence in the supposed virtues of the cantharides.

POLYDIPSIA.—A woman, aged thirty-seven, habitually enjoying good health, was suddenly seized, some six months since, with headache, loss of appetite, dyspepsia, and excessive thirst, which was not even assuaged by the immense quantities of fluid (twenty quarts in one night) which she was in the habit of drinking. The urinary secretion corresponded in quantity with the amount of drink. The patient was admitted into M. Rayer's wards, and the urine examined chemically; its specific gravity was very little more than that of distilled water—a circumstance which removed all idea of diabetes, and even of albuminous nephritis. Nitric acid and heat produced no deposit; boiled and treated by caustic potass, the urine presented no peculiar colour. The pulse was natural, and all functions regular, with the exception of the renal secretions and the presence of dyspepsia. Camphor was exhibited every day in doses of twelve grains, in pills. The medicine was continued for nearly two months, when the symptoms were completely removed.

D. M'CARTHY, D.M.P.

REVIEWS.

Letters to a Mother on the Management of Herself and Children in Health and Disease, embracing the Subjects of Pregnancy, Childbirth, Nursing, Food, Exercise, Bathing, Clothing, &c. By J. T. CONQUEST, M.D., F.L.S., &c. London: Longman and Co. Pp. 337. 1848.

It is rarely that books written on medical subjects for the use of the public are intended or calculated to accomplish much good. Persons who venture upon this line of authorship have, in general, no other object in view than to puff themselves into notoriety, and their productions are disguised quack advertisements. The members of the profession have, in consequence, viewed with suspicion any attempts to treat medical subjects in a popular manner, and the task is not an easy one for an author to accomplish without being chargeable with the guilt of selfishness. It is creditable to Dr. Conquest, however, that his little book addressed to English matrons is one well calculated to be useful to them, and contains nothing to which his professional brethren can properly object. The instructions which are given have reference more especially to the prevention of disease rather than its treatment, the author feeling "the impossibility of teaching any one undisciplined in the school of medicine to distinguish or cure disease, which can only be done by those who, by education and experience, have acquired a deep and extensive acquaintance with the laws which regulate life, founded on an intimacy with the structure and functions of the human frame."

The author has a section on chloroform, and speaks in high terms of it as an anæsthetic agent in midwifery practice. His object in introducing it to the notice of "mothers" is evidently to prepare them to submit to its operation "in the hour of Nature's sorrow," whenever the accoucheur may deem it necessary to advise its employment. Dr. Conquest not only speaks of it in high terms as having the power of removing the pangs of childbirth, but also of promoting the expulsive powers of the uterus; and, being himself convinced of its value, he is anxious to remove from the softer sex all prejudice against its use. The manner in which the attempt has been made to obviate religious objections is not altogether such as we approve, and such, we think, as will carry very little weight with those entertaining this kind of prejudice. "A large class of objectors," says our author, "are those who consider the endurance of pain during delivery essential to the fulfilment of the primeval curse consequent to the temptation of our first mother; but, if such will consult any eminent Hebrew scholar, they will find that the original passage in Gen. iii. 16, *should be* translated: 'I will greatly multiply the sorrow of thy conception, and in toil (or labour, or work) thou shalt bring forth children.'" Now, to this translation we decidedly object, as neither in accordance with the Hebrew original, nor with the most ancient versions of the Bible, the Septuagint, and Latin Vulgate. The doctor evidently lays stress upon the word *etzev*, which signifies dolor, *labor*, molestia, idolum, simulacrum. The signification *labor*, however, is used metonymically in Proverbs v. 10; and to translate the passage of Genesis cited above in the way proposed is to warp the signification to suit a particular purpose. Anæsthetic agents require no defence in this way; and the text above, according to the English version, affords no grounds for casting them aside in obstetrical practice.

THE MEDICAL TIMES.

SATURDAY, APRIL 29, 1848.

SURGERY IN THE NINETEENTH CENTURY.

WHAT is surgery in 1848? What is *British* surgery in 1848? What, above all, in 1848, is British *hospital* surgery? These are interesting questions answered for us by a contemporary, with illustrations neither doubtful nor unimportant.

In that semi-animated thoroughfare known as Gray's-inn-lane the eye of the stranger is arrested by a building whose imposing exterior recals to the classical student much that he has read about the walls of Egyptian Thebes, especially of their brass. The most modern of our London hospitals, supported by a princely income, often reaching £8000 per annum, and free, by the very circumstances of its foundation, from the cliqueship, the family influence, and close management which have been the standing grievances of Guy's, St. Thomas's, and the other respectable hospitals, it is the institution where all that "*secluded* surgical skill and genius" of which during thirty years we have heard so much must have taken refuge and found a welcome. Recalling the title of the institution—"The Royal Free Hospital"—and the name of its *surgeon in chief*, ——— we feel at once that such an hospital must be the scene of great triumphs in surgery, towards which the eyes of scientific Europe may justly turn for those teachings and practices that illustrate the most advanced surgery of the day.

Turning, therefore, to its official records with the pride and satisfaction they must naturally inspire in every British-born surgeon, we subjoin, for the admiration of our readers and the use of grateful posterity, a full reprint of one of two most remarkable recent achievements in operative surgery. Brought before the profession in the authorised bulletins we reproduce, and offered up to popular worship by the advertisement often published:—

"[Advertisement.]—Operative Surgery.—Amputation at the shoulder-joint in a patient aged seventy-one, successfully performed under the influence of ether by Thomas Wakley, Esq., surgeon to the Royal Free Hospital. Also amputation of the arm in a man aged seventy-five, under the influence of ether, successfully performed by Thomas Wakley, Esq. Perfect recovery of both patients. These cases exhibit the most extraordinary proofs of the safety and value of the use of ether vapour in operative surgery. The *Lancet* of —— last, ——, contains full reports of these highly interesting cases"—

we may confidently take both cases for chirurgical triumphs, admirable not only in themselves, but even relatively to that *model* hospital which they aid to immortalize.

The *patient* reader, having perused the reprint we have subjoined, will probably agree with us that it offers us the most singular case of "aneurism" and "FUNGUS HÆMATODES" on surgical record. How excellent—how attractive is the heading! What a field for wonder and expectation does it open to us! What a rapid vicissitude of events!—events as unexpected and contrasting as the figures in a phantasmagoria, or scenes in

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a succession of dissolving views. First come sanguineous collections arising from the opening of unimportant arteries, *postiaux* by the genius of the artists—ramified aneurism of the whole arm! We reflect on how an aneurism so extensive is to be diagnosed and treated, and lo!—the scene shifts—the great artery of the arm is tied in a miserably wasted old man, and all the direful contingencies of wide-spread sloughing are brought into clear and certain perspective! Expectation is not long baffled. The "new" feature, sloughing of the muscles, makes its entrance, the narrator encountering it with an amiable surprise, and we have scarcely decided on how this sloughing has originated, when, *presto*, the scene shifts, and a malignant and incurable disease (fungus hæmatodes) takes possession of the contested arm—to the utter rout and discomfiture of everything in the way of modern pathology taught or known in Paris, Berlin, Dublin, or Vienna! But this model achievement of our model hospital, in the model year 1845, is too important to be treated thus generally. What, then, are its details?

Morris Mahoney, a patient of seventy-five years of age, enters the Free Hospital on the 4th of September, having previously failed to derive any benefit from those operative "muffs," Lawrence and Stanley, who are at the head of the rather "slow" concern called St. Bartholomew's. Foiled here, the poor man of course betook himself to the smart young gentleman at the head of the "Free"—the last hope of despairing patients—the *dernier resort* of the incurables of all other hospitals. A slight injury of the wrist sustained five months previously, had produced so little inconvenience that after a day or two he had returned to his work as usual. Subsequently, however, from some unknown cause the arm began to show, on the ulnar side, a swelling, which the parish surgeon lanced. Blood, it is said, was profusely poured out each time, showing in the clearest manner that the surgeon had opened some branches of the ulnar artery. The treatment adopted in St. Bartholomew's is not recorded, but we find that, on the day of his admission to "the Free," the arm had swelled to double its proper size, and that there was no pulsation in the ulnar artery. At this stage of the case the surgeon *en chef* takes it for granted that he has an aneurism. Seemingly acquainted with some surgery known forty years ago, and estimating at a cheap rate the subsequent *obscure* labours of Hodgson, the Dublin surgeons, and modern teachers, he aspires at once to the daring celebrity of placing a ligature on a great artery, and, leaving the ulnar to its fate, proceeds forthwith to the brachial!

This was certainly rather *dashing* surgery. We had thought and hoped that this mistaking of wounded arteries for aneurisms was a vice not of this century but the last. After the labours of Scarpa—so bright, so luminous—after the splendid monographs published by the French Academy of Medicine—after what may now be termed this commonplace experience of the schools of Edinburgh, Dublin, and London—we *avow* to some amazement at the fact that the revolving circle of human error should present to us to-day in a London hospital the old mistakes so long exploded in all others! For the patients of the Free Hospital science for the present century has toiled in vain! In their favour there seems to be a "restoration" of the blunders that have abdicated in all other localities!

Instead, then, of following the wound made by the parish surgeon, extending his incision, sponging out the fluid blood (if blood) which was gradually and slowly filling the arm, dissecting the muscles, and, as ultimately happened, laying bare the bones themselves, and thus ascertaining what really had happened, the surgeon *en chef* will have it that this wounded artery is an aneurism, and, as it is as *easy* as *distingué* to achieve the ligature of the brachial, *he ties that great arterial trunk*. The great deed done, the ligature, so far removed from the seat of mischief, failed, as every surgeon must have foreseen, to influence the hæmorrhage from the ulnar branches, and, apart from the chirurgical distinction he had unconsciously *conferred*, the poor patient was not the better for his heroism—if anything, the worse, for he lost by it an extra chance or two of recovery. In an emaciated and irritable old man of seventy-five, a ligature cannot be put on the arterial trunk of a limb without the greatest hazard of that limb's falling into gangrene. Even in the young, healthy, and active, the operation is not without occasional danger. Every surgeon who has had experience in popliteal aneurism knows that a ligature on the femoral artery is but too often attended by the loss of limb and life through sloughing. When the brachial artery has been punctured by the operator even at the bend of the elbow, and a vein simultaneously opens whereby the blood can communicate with the nervous system, it is known that a ligature cannot be put on the brachial artery without endangering the loss of life. Indeed, no practical surgeon now talks of tying the bleeding wounded artery of the wrist, or even if the wound take place at the bend of the elbow; for it is a well-established fact that to tie the brachial artery a little higher up exposes the patient to repeated attacks of hemorrhage—to repeated surgical operations, and sometimes, as is mournfully illustrated in the present case, to loss of limb or life.

Let us recollect, also, that on Sept. 4 the exploring needle showed that florid blood filled the sheath of the forearm. If this be a fact, on what pretence could an operation be delayed till Sept. 13, nothing in the interval being done for the arm and wound? An expression indeed bearing on treatment does occur well worth both record and comment—"He was ordered to try gentle bandaging and the application of cold." Who applied the bandaging? Was it the patient, house-surgeon, or the surgeon *en chef*? Was he left *during nine days* to the mere *chance* of bandaging for a limb filled with florid blood? Or was the bandage applied by the surgeon, or indeed by any one? Hardly. Curious as is the surgery of "The Free," there was none bold enough to apply a "gentle bandage" to a limb so situated, in the hope of arresting a deep-seated hemorrhage, coming from an unknown source, or, if any source was conjectured, a source so formidable as the ulnar artery!

Having now, with all the deference due to the model hospital, used our illustration and pointed our moral, that these ligature operations though simple in themselves, are never to be engaged in without the most discriminating and deliberate consideration, we shall proceed, with equal humility and respect, to consider some of the effects that rapidly followed to this poor man—the victim certainly of a hard destiny. The great result—sloughing of the limb—which was to be looked on as inevitable took place faithfully and punctually, this *first fruit* of the great chirurgical achievement presenting itself on the 16th, and at the point of the unlucky puncture made by the parish surgeon. To describe what followed would be but to register what any surgeon would have predicted at the operation.

The swelling of the arm continues, with a dry and red tongue; that which the surgeon *en chef* mistook (amusingly) for an ecchymosis "proves to be a slough also;" sinking of the vital powers takes place, with a small pulse, fever, fetid discharges from the arm, sloughing of the muscles. All these symptoms *created, if not treated, secundum artem* (the applications *are* chloride of lime and carrot poultices), are events flowing from the antecedents just as naturally as cause and effect under any chain of necessary causation. If externally we have nothing better than carrot poultices, internally the provision is better—two bottles daily of Guinness's stout, and wine, and chops, and eggs—just to show, probably, how temptingly well an *operation-able* patient will fare within those walls that frowned refusals—deaths—a few months since, on the consumptive wretches vainly imploring admission to its many vacant tables and unoccupied beds.

On Oct. 2 the sloughing process had gone as deep as it could without traversing the whole of the limb. It had laid bare both bones and the interosseous membrane, showing further those phenomena described (by the surgeon *en chef*) as "healthy *granulations*" springing up from the edges of the excavation, and which beyond a doubt were merely the red surface of exposed muscles. The hemorrhage, *of course*, continues, and a fungous growth (simultaneously with the "healthy granulations") appearing at the bottom of the excavation, the foul and bleeding sore is at once set down as fungus hæmatodes.

That state has now arrived to which every step yet taken had necessarily led, viz., a hopeless state of the limb. Amputation is proposed and agreed to; the limb is removed by flap operation above the elbow-joint, on the 14th of October—the important part of the *rule to view*, being of course duly exhibited, as in the first operation. On the 20th Nov. the man has a shrivelled and attenuated form, and on the 24th Nov. we find the following curt and comprehensive report:—"Discharged, quite well." No dissection of the forearm is given, nor history of the pathology or appearances; and the reader is left with the pleasing idea, that fungus hæmatodes in the Royal Free Hospital is now a curable disease. Consumption—a case not so propitious there hitherto—will come next; and the good public smitten at once by the marvellous nature of its cures, and the kin mode of handling them to publicity, will be very apt to commit the injustice of fancying that Professor Holloway's ointment is in surreptitious use through the wards of the model hospital. There can surely be no other *scientific* explanation of its recent chirurgical marvels.

Our first model case must, so far, then be confessed somewhat unfortunate. There was no justification for the ligature, as every student of a year's study will now admit. Bad even with greater proximity of the wounded part, it was extravagantly wasteful when that injury affected the forearm within an inch of the wrist-joint, and in the seat of arteries known since Hunter's time as peculiarly exposed to secondary hemorrhage, and requiring for their successful treatment a wholly opposite course. We are sorry to weary a reader of average information with these elementary truths, but something must be pardoned to our interest for the surgeons and inmates of "The Free," to whom rudimentary science is of considerable importance.

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To sum up, we have at once, error in diagnosis and error in treatment. First, wounded artery mistaken for aneurism; red muscle exposed mistaken for healthy granulation; initiatory sloughing mistaken for ecchymosis; ill-conditioned granulating growth mistaken for fungus hæmatodes; and fungus hæmatodes mistaken for a curable disease. And then, in treatment, we have the wounded artery not exposed; time unnecessarily lost, thereby entailing the dissection of the muscles of the forearm in their sheaths by the effused fluid; the well-known caution neglected as to the treatment of wounded small arteries around the wrist by careful pressure from bandaging, and a special attention to the local circumstances as they arise; the main trunk of the limb tied (with proximate fungus hæmatodes!) at a part so remote as to render it hopeless that the ligature would command the hemorrhage of the ulnar; in fine, two capital operations unwisely necessitated at the greatest possible risk of life in both, with the certitude of loss of limb in one!

Case the second we will dispose of briefly, for we have criticized it in advance. Like case the first, it is an advertisement given as a contribution to science. We dare say an arm may be taken off at the shoulder-joint in the Royal Free Hospital, when it trusts itself there; and, if the fact were doubted, the advertisement serves a useful purpose, if people will believe it. But what of it, after all? What is the feat at its best but a dissecting-room trick easily acquired, requiring but small manual dexterity, and still less anatomical or practical knowledge? But even in so simple a case apparently, and so easily told, the useful facts are for some reason withheld. An aged person is admitted on the 3rd of November, for a large malignant tumour and open sore on the back of the arm—a case, according to the reporter, of fungus hæmatodes of some standing. Passing by two showy drawings of the arm and tumour on dissection, we are told that the largest flap was taken from the deltoid; now, the sketch before us forbids the possibility of doing so, unless it had been merely from the anterior portion of the muscle, for the tumour is drawn as occupying the outer and back part of the arm nearly to the acromion process. The subsequent stages of the operation are not so much as attended to; and in respect of the tumour itself, no hint is given of its appearance when cut into after the removal of the arm; how connected; if involving the nerves, the artery and veins. We must, however, do the case full justice. If the scientific interest be small, the personal is great: a modest hint being given that the patient had previously (with no advantage of course) consulted a *nameless distinguished surgeon*.

So much for two "*extraordinary*" cases, in which, according to the popular advertisement in the daily papers, there was, strange to say, "*perfect recovery.*" A third "*extraordinary*" case stands before us on our table awaiting from us its editorial sentence. It shall not wait long, for it also illustrates our initiatory inquiry, What is surgery in 1848? What is *British* surgery in 1848? What, above all, in 1848, is British hospital surgery?

ROYAL FREE HOSPITAL.

Diffused aneurism occupying the entire forearm; ligature of the brachial artery; sloughing of the muscles, &c., of the forearm, terminating in fungus hæmatodes; amputation of the arm; safety of using the ether in an almost moribund condition of the patient; complete recovery.

Reported by WEEDEN COOKE, Esq., Resident Surgeon.

Morris Mahoney, aged seventy-five, an emaciated Irishman, was admitted Sept. 4, 1847, under the care of Mr. Thomas Wakley. Five months previously he had been knocked down by a cart; his hand was forcibly turned backwards upon the forearm, producing at the time considerable pain. After a day or two he felt but little inconvenience, and worked as usual. At the expiration of two months the ulnar side of the wrist began to swell, and, continuing to do so for a week, he became a patient in St. Bartholomew's Hospital. He remained there three weeks, and the swelling continued to increase. Subsequently he placed himself under the care of his parish surgeon, who twice lanced the arm: blood was profusely poured out each time: the swelling increased, and extended up the forearm, but did not proceed beyond the fascia of the biceps.

Sept. 4. He now complains of most excruciating pain in the forearm; it is at least twice as large as the other forearm; the surface is redder than natural, and the superficial veins are greatly distended; there is pulsation in the brachial and radial arteries, but none in the ulnar; the sense of fluctuation from the wrist to the bend of the elbow is very distinct; the swelling does not encroach upon the arm; it is entirely confined beneath the fascia bicipitis. The last opening made by the lancet, before he came to the hospital, is not closed, but discharges occasionally a small quantity of blood, and the part surrounding the opening is elevated in a conical manner. Upon the introduction of an exploring needle, florid blood escaped. The old man, although irritable, and wasted from suffering, with bluish gums and lips, and a red, rather dry tongue, has all his important organs—heart, lungs, liver, and kidneys—in a healthy condition. The secretions are regular and natural. He was ordered to try gentle bandaging and the application of cold, with some full doses of opium to relieve the pain, from which he experienced great comfort. The swelling, however, continued to increase, the arm being larger, by three lines, in eight days after his admission; it was therefore deemed advisable, on a consultation amongst the medical officers, to tie the brachial artery—thus treating the case as one of diffused aneurism. Mr. Wakley performed this operation on the 13th of September. The artery was perfectly isolated, the ligature made fast, and the pulsation of the radial artery ceased. The ether was successfully employed during the operation.

14. He had an opiate last night, and slept at intervals, but complained of pain; the heat of the arm is undiminished; the veins, which were previously distended and dark-coloured, are now apparently empty, forming, as it were, canals between the muscles; the arm is enveloped in cotton wool; very little constitutional disturbance; appetite good; bowels open; skin moist. Ordered beef-tea during the day, and a grain of morphine at night.

15. Slept soundly for fourteen hours; tongure dry in cetre, somewhat brown; the whole of the forearm is of a deep-red colour; complains of pain; says his hand is cold, but it does not feel so; the forearm is hotter than before the operation; pulse 96, small, compressible; secretions natural. Repeat the morphine at bedtime.

16. Pulse 90, of good power; tongue moist, very red at edges, furred in the centre; slept well at night; the lancet-wound made before he came into the hospital has become sloughy; there is a small quantity of ragged pale cellular tissue protruding from it; the arm is very warm, and its colour less dark. Repeat the morphine.

17. Was in pain, and slept badly last night; pulse 90; tongue still red and furred; appetite good; the wound made in tying the artery is healing. Ordered one grain and a half of morphine at bedtime; meat and porter; and cold lotion to the arm.

18. Slept well during the night; pulse 90, soft; rather weak; tongue dry in the centre, and rather brown; the arm is increasing in size; the livid appearance is less; the integument at the upper part is recovering its natural hue; at the inner side of the forearm, near the wrist, there is a small patch of ecchymosis; there is much less pain. Ordered beef-tea, meat, and two pints of porter; and repeat the morphine.

19. Tongue is now dry, and very red; his appetite is excellent; had a good night, and is quite easy.

20. The wound made by the lancet is sloughing, and the ecchymosis near the wrist proves to be a slough also; the rest of the arm is of natural hue and temperature.

21. Appetite not so good; is depressed, and complains of pain. Ordered six ounces of port wine.

22. Is much improved; slept well, and is nearly free from pain; sloughing process going on rapidly.

23. Pulse 96, small; tongue dry and red in the centre, moist at the edges; the bellies and tendons of the flexor muscles are exposed and protruding, but the skin at the edges of the slough is healthy; the discharge is slight, of a sanious character, and not peculiarly fetid; the morphine was not given last night, and in consequence he was very restless. Ordered bark and acid; port wine, porter, beef-tea, and mutton chop; repeat the morphine.

24. This morning a portion of the sloughing muscles came away; increased discharge of the same character; pulse 84, much more power; tongue less dry; eats and drinks well; slept soundly all night. Wash the arm with solution of chloride of lime, and apply carrot poultices.

27. The ligature of the artery came away this morning; the greater part of the flexor muscles has sloughed away. Mr. Wakley removed the tendons with the scissors; there is a good deal of sero-sanguineous fluid discharged in the poultices; some dark clots may be observed clinging to the ulna, which is exposed; the tongue has now become moist, clean, and less morbidly red; appetite good; takes two bottles of Guinness's stout, besides wine, two chops, and two eggs, daily; secretions still regular and natural; sleeps well; is in no pain; countenance cheerful, and spirits good; pulse ranges from 80 to 100; the skin around the part sloughed has a healthy hue, and is granulating at the edges; there is now more fetor.

30. Sat up yesterday for a short time.

Oct. 2. The sloughing process appears to have ceased; the excavation is very deep, completely exposing the inner sides of both bones, and the interosseous membrane; granulations are springing up from the edges of the excavation; sleeps now without the morphine.

5. Some venous hemorrhage has occurred occasionally since last report; a small, spongy growth has made its appearance, lying upon, and partly covering, the ulna; continues to take his food, and sleeps well.

8. The spongy growth has increased, bleeds upon being touched, and especially when washed. There have been three hemorrhages, since the 5th, of about three ounces each time, which have reduced him considerably. He, however, continues to take food, and sleeps well. To apply cold vinegar and water, and continue the stimulating diet. The blood discharged, upon examination under the microscope, exhibited no caudate cells—nothing but pus and blood-globules. It was, however, considered that the disease could not be other than fungus hæmatodes; that the hemorrhages, although small, were exhausting the patient; and that consequently the only chance of saving his life was by removing the arm. He, however, refused to consent.

12. The repeated hemorrhages have reduced him to so low and perilous a condition that the intention of amputating the arm is abandoned; happily, he still continues to take food and stimulants.

13. He now lies in an almost moribund state, and it is considered that his death will inevitably take place in the course of a few hours.

14. Has rallied to some extent. In the afternoon he confessed to his priest, and took leave of his children, as though certain of death. But after "confession" he expressed a wish to have the operation performed. Although the case appeared to be utterly hopeless, Mr. Wakley immediately consented to operate, and stated that he should administer the ether, as, from what he had witnessed of its sustaining power in some other instances of extreme debility, he expected benefit from it, in addition to protecting the patient from the shock of the operation. The ether having been inhaled for about a minute, Mr. Wakley amputated the arm. He preferred the flap operation, as it enabled him to cut below the point where the brachial artery had been previously tied. By adopting this precaution, he hoped to limit the loss of blood to a very small quantity. Although there were several small arteries which required ligatures, not two ounces of blood were lost in the operation. The patient did not feel pain until after the operation and dressings had been quite completed. Having taken, at intervals, some brandy, ammonia, and opium, he passed the evening and night quietly, and obtained some sleep.

15. Very slight oozing of blood; quite relieved from all pain; pulse 96, rather hard, and small; tongue dry and red; took an egg and some tea this morning. To have beef-tea, and fish for dinner.

16. Slept well last night without an opiate; is cheerful, and takes nourishment well; pulse is now soft, 96.

17. Stump dressed, healing by first intention; is troubled with hiccough this morning. Ordered four ounces of wine.

18. Hiccough continues; slept well; bowels regular. Ordered an ether draught, and to continue the wine.

19. No hiccough to-day; going on well.

23. The tongue, which from the commencement had been remarkably red and glazed, is now assuming a natural appearance; the stump discharges healthy pus; he is still extremely feeble, but is much improved in his looks. The ligatures came away to-day without the least hemorrhage: he is taking four ounces of port wine and two chops daily, besides an egg for his breakfast.

27. He has very little pain; it is sometimes necessary to give a small dose of opium at night; he sits up now every day for an hour or two; stump healing.

30. Complains of more pain at the inner part of the arm than usual; there is some thickening and tenderness in the course of the vessels, with considerable discharge of rather thin pus from the inner side of the stump; tongue clean; sleeps well; appetite good; some œdema of the legs.

Nov. 8. The attack of phlebitis has been very slight; discharge now healthy and thick, and tenderness in course of vessels gone; the secretions are all natural.

15. Complains sometimes of pain in the stump, which disturbs his rest; he gains strength slowly; the œdema of the legs has disappeared; he can now walk about the ward, totteringly. Ordered an opiate at night when necessary.

20. Stump healed; he now walks with a steady gait; the blueness of the lips has given place to a more healthy hue, and the anxious countenance to a smile of cheerfulness and gratitude; the tongue, which was so peculiarly red for a long time, is now quite that of a healthy man, whilst his shrivelled and attenuated form is beginning to show signs that the balance between deposit and absorption is in his favour.

24. Discharged quite well.

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ON MEDICAL EDUCATION.

[FROM A CORRESPONDENT.]

"Honos alit artes, omnesque incenduntur ad studia gloriâ; jacentque ea semper quæ apud quosque improbantur."—CICERO *in Tusc. Disp.*

(Continued from page 497.)

SOME persons are of opinion that too much of the time which should be devoted to the acquisition of practical knowledge, or to the proper cultivation of our own language—so often and so shamefully neglected—is now bestowed upon classical education. But it must be remembered that this knowledge is necessary in the details of our profession, and must ever be considered to maintain a high position as constituting an integral part of a sound and scientific education. It seems unnecessary to say more on that subject here, as the rudiments of more than one language will have been generally surmounted before young men decide on adopting any profession, and such parental culture completed as will have impressed distinctly on their minds the unerring principles of morality and religion.

The exercise of the two mental faculties—observation and reasoning—is of incalculable value to the medical student. They are intimately connected with all his subsequeut pursuits, and must form the groundwork of his professional knowledge. "Education," says Dr. James Johnson, "is partly made up of abstract, partly of practical, science. As philosophers we ought to cultivate the former; as physicians and surgeons we must apply, and should be familiar with, the latter. The mass of students are neither calculated nor intended for mere speculative men. They require that practical knowledge without which they can neither feel nor inspire confidence, and which is as indispensable for the safety of their patients as for their own success." It is only by awakening those faculties to which I have alluded that practical knowledge can be turned to good account; and, to render this more effectual, the early study of metaphysics requires attention. I cannot avoid looking on this branch of science other than as the most ennobling of pursuits. Through it we obtain a knowledge of the faculties, powers, and operations of our own immortal souls; the investigation, as far as we possess the power, of the nature of our own intellectual being; the distinguishing characteristics of mind and matter; their connection with each other; the phenomena which we daily exhibit to ourselves of sensation, perception, memory, comparison, and the adaptation of means to the end. These comprise the great principles for which the power of reasoning was conferred upon us—a power which, as Dr. Black observes, "if we *do not* exercise, we are bigots; if we *cannot*, we are fools; if we *dare not*, we are slaves." Study of this nature possesses peculiar interest for medical men, connected so nearly as it is with our duty and destiny as immortal beings, with the question of the freedom or necessity of human actions, our responsibility for our conduct, and our anticipations for futurity.

Together with this, the necessity of ethical instruction stands prominent. It is important not only as a discipline of the intellect, but as a means of moral improvement. By it is cultivated that faculty in man which teaches him to distinguish good from evil—which makes one course of action the subject of self-approbation or of self-reproach on the one hand, and shows the tendencies of human desires to produce misery on the other. It is the investigation of a universal law, by which all moral beings are bound to the throne of God—a law which no power but the infinite can abrogate or annul. The foundations of morality are eminently calculated to train the mind to strength and acuteness, but they require to be fortified by study and investigation; for the law which rules them, although plainly written, requires the lamp of knowledge to make it legible to the mind and influential in its authority on the conduct. The deplorable negligence of the cultivation of this principle has left room for animadversion on our profession. Only a few years back Lord Brougham stated in the House of Lords, that "the moral weight attached to the opinions ofmedical men was of much importance, and required to be examined into; that no punishment ought to be commuted on the responsibility of a medical man; that it was quite monstrous such a practice could be pursued at all, for it was well known with what facility medical certificates could be obtained." These remarks afford subject for serious reflection indeed; and if, as thus confidently asserted by such an eminent authority, this depravity exists among any members of our profession, it should warn us that the best method of removing such an evil is by early inculcation of right principles at a time when fraud, falsehood, and injustice are most abhorrent to the youthful mind. The love of truth and living sense of duty are born with us, to be developed by education; they enter into the inmost recesses of our nature; they bear on all our hopes and expectations; they open the eyes of the soul to the great purposes of life; and by experience they teach us that there is a moral mirror in the heart of man which reflects the images of things around him, and by which every change that comes over Nature's face is mingled sweetly, though too often unnoticed, with the thoughts and feelings called forth by other impressions.

Many may urge that these matters are too purely of an abstract and philosophical nature, and too frequently unattainable by the majority of pupils. Such objections cannot hold good, if they are considered essentially requisite preparatory to entering on the severe, precise, and elevated studies connected with the medical profession. They are perfectly attainable through every classical and scientific teacher; and whoever looks on, as too difficult, knowledge so necessary—nay, so indispensable—has not a mind calculated to acquire a sound knowledge of any scientific art. There are many reasons why they should be included in preliminary studies: firstly, because of their inestimable value as a mental preparation; secondly, because the constant application which their successful study requires will exclude the idle and the stupid from the ranks of the profession; and thirdly, because their early acquirement will afterwards prevent the attention being distracted by devotion to these, amid the bustle of practical pursuits.

I must here candidly confess that I am not one of those who think there is a royal road to science by the charm of a university education. I have known many persons possessing moderate abilities who never passed a single university examination, and who, nevertheless, had a sounder and more extensive knowledge of science and classics than any university man of the same standing. Nor would I for a moment hesitate to place in competition those taught in private schools and under private teachers with those redundant in university honours, and to assert that, of all amongst them who have risen to eminence in the world, the universities have furnished the smaller portion. The spirit of monopoly which rears its giant head in all our universities should make us look upon them with distrust; and, until they imitate the example set to them by other countries—more liberal and generous in this at least—I, for one, would never advise a friend of mine to put a foot within their precincts, or receive a single lesson from any professor in their great halls. "Whatever the defects of American universities may be," observes Mr. Dickens, "they disseminate no prejudices; rear no bigots; dig up the buried ashes of no old superstitions; never interpose between the people and their improvement; exclude no man because of his religious opinions; above all, in their whole course of study and instruction, recognise a world, and a very broad one too, lying beyond the college walls." How would every man, happy of the honour and glory of his country, feel his heart beat happier and with higher aspirations, did he see the time arrive when this picture would contrast less vividly than it does now, with those institutions which every nation looks upon as guardians of the treasures of her genius, as citadels of her intellectual power, impregnable and ever-enduring!

A collegiate course of classics, at least, is indispensable to all medical students; but this, we know, can be obtained out of a university as well as in one, the fees of which are in many instances insuperable barriers to students whose talents may be of the highest order, but who may labour under the disadvantage of "limited means." How far this should extend may not properly be discussed here; the limits and details of such a thing pertain rather to a plan of educational reform, than to any paper of which the object is to point out the *kind* of education and instruction best calculated to give a high position to our profession.

Before quitting the subject of preparatory education, I cannot avoid observing how painful it is to reflect that in the culture of our own language, used in the daily business of our lives, and whereof a correct knowledge is so easily attainable, medical men are often proportionably negligent and deficient. The power of writing, reading, or even speaking well is one possessed less frequently than we should desire to acknowledge; and the circumstances under which professional men are often placed through life render a deficiency in these respects, to one who labours under it, most disagreeable and embarrassing. Above all things, this should be impressed distinctly on the mind, that, without a solid English education, the most perfect system of medical studies will not make them men of business, as all professional men must of necessity be in the present age.

WHAT HAVE MEDICAL CORPORATIONS DONE FOR THE PROFESSION?

THE age in which we live is remarkable for the changes which have been effected in institutions venerable from their antiquity. The various nations of Europe have been animated by a spirit of investigation which has induced them to examine the modes of government under which they live, and to pass a verdict upon their merits. Moved by the same spirit, the members of the medical profession in England have arraigned at the bar of public opinion those corporations which exercise authority over them. A variety of circumstances have conspired to awaken them to this effort, but one especially

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has animated them with perseverance, viz., the oppressions which the majority of medical practitioners have for a long time suffered. Their lamentations have waxed louder and louder, and under the pressure of difficulties they have been disposed to pass some severe censures on medical corporations. The inquiry has been made again and again, Of what use are these as they are at present constituted? and we propose in this article to examine the question so far as concerns the London triumvirate.

In glancing over the history of these worthies, we find that they have been remarkable for a propensity to reflect on each other, and by overt acts have unwittingly condemned themselves. Let us examine, in the first place, the conduct of the College of Physicians. For years it slumbered under the shadow of its own supposed greatness, and symptoms of life were only manifested when there was a prospect of promoting its own interests. To science and to the profession its existence was no boon, for it neither patronized the one nor protected the other. For years it confined within a narrow circle the honours and emoluments at its disposal, and, with a strange infatuation, frowned with contempt upon its most talented licentiates who were unable to enter the college portals by way of Oxford or Cambridge. The cap and gown of these two venerable seats of learning possessed a talismanic power in Warwick-lane; before them the college gates spontaneously opened, and by their influence the most exalted stations were easily obtained in this temple of science. The ungowned candidates for the licence, however, were compelled to undergo the ordeal of an examination before they could be even admitted into the outer court; and so unfair was this often conducted that some of the most worthy men were often branded with the stigma of ignorance, and sent back to their studies. The list of rejected candidates will for years to come reflect disgrace upon the corporation, which was more concerned to have within its pale men possessing academical honours than those having medical skill. In the palmy days of snobbery and sneaking, quackery flourished within the precincts of this ancient college. There were to be found, either amongst the fellows or licentiates, mesmerists, hydropathists, homœopathists, worm-doctors, water-doctors, &c.; and the authorities either winked at their doings or used but feeble efforts to check them. Even to this day the corporation is contaminated by quacks, and all that is done to deter them from their proceedings is to threaten them with expulsion, which occasionally has been carried into execution.

The college, feeling its own weakness, a short time ago applied to the Government for a new charter, a draught of which we laid before our readers about a fortnight since. Under the operation of the present charter two classes of licentiates have existed—the permissi extra-urbem, and the permissi intra-urbem. In clause 4 of the new charter it is proposed "That each of the present extra-licentiates shall be admitted an associate of the corporation on the production to the censors of testimonials of character and professional qualification which shall be satisfactory to them, and on passing such examinations before them as shall be regarded by, and shall be satisfactory to, the censors, and on his paying to the corporation a fee of £25, exclusive of the stamp duty." Now it is evident, by a reference to the act of Henry VIII., that the two classes of licentiates are equally ancient, and have equal privileges within their appointed districts. It is equally certain that the extra-licentiates did not obtain permission to practise as physicians without having passed the examinations required by the college, and paid the stipulated fees. What, then, are we to think of this licensing body, first to grant authority to certain persons to act as physicians, after being examined "by the most cunning and expert of the faculty in London," and then tacitly to declare that their examination was mere fudge, the interests of the public and the college requiring permissi extra-urbem should again be further examined, and a larger amount of money demanded of them, before they can be admitted "associates of the college"? It has thus offered a gratuitous insult to itself in endeavouring to perpetrate an act of injustice upon its licentiates. What confidence, we ask, is to be placed in a corporation which has authority to license persons to act as physicians—which exercises this authority—and then demands of the Government new powers by which it may be able to call certain of its licentiates before them to undergo another examination, or else be disfranchised, as the first was not a proper one? What trust ought the public to put in such a corporation? We deeply sympathize with those gentlemen against whom this clause was intended to operate, and we sincerely hope that they will not be backward in vindicating their honour and maintaining their privileges.

We notice, secondly, the conduct of the College of Surgeons. With this institution the great body of the profession has more especially to do, as the majority of general practitioners in England and Wales has received from it a diploma of membership. But what has this corporation ever done to promote the best interests of those who have obtained this document? We are compelled to answer—nothing. It has existed for the advantage of the few to the injury of the many—it has conferred membership without privileges, and it has declared that its diploma is no test of professional ability in the possessor beyond the "ordinary exigencies of surgery." It insists that it is a college of pure surgeons, and, therefore, strenuously opposes all efforts for the enfranchisement of its members. It would be a difficult matter to discover any great boon that this college has ever conferred, either on the profession or the public; for, according to its own showing, it bestows upon the one no honours, and upon the other no protection. And yet this corporation determines to maintain its hold upon the purses of general practitioners; for it will be a party to no measure of reform where it is not allowed to vend its diploma in the same way and for the same price as it does at the present moment. If the college is to become what it ought to be, it must undergo a great change.

Finally, we have, as an English medical corporation, the Apothecaries' Society. And what advantage to the profession has this ever been? That it has been guilty of many sins, both of omission and commission, like its aristocratic neighbours is certain; but we must, at the same time admit that this *trading company* has proved itself a friend to medical education. It has resisted the efforts of the Lincoln's-inn establishment to lower the status of the general practitioner, and it has prevented it also from lowering the standard of his professional education. This company, however, though, furnished with power to put down uneducated practitioners by an act of Parliament, has been exceedingly remiss in defending its licentiates against their encroachments. With an income, from the sale of diplomas, more than adequate to follow up vigorously needful prosecutions, it has pleaded poverty as an excuse for a neglect of an imperative duty. The licentiates have, in consequence, been left to fight their own battles, and to incur the opprobrium and responsibility of informers, whenever they have considered it necessary to institute prosecutions against quacks. Under such circumstances, we cannot wonder that they are, in too many instances, permitted to proceed in their iniquitous career unchecked; and lawful practitioners with some show of reason charge the Society with a betrayal of their interests.

Is it, then, a matter of surprise that the profession should have been long desirous of an efficient measure of medical reform? It has been—like Sinbad with the Man of the Sea on his back which he was for a long time unable to shake off—saddled with corporations which have made it groan beneath their weight. Relief seems yet at a distance, but it may come through the medium of a new incorporation. The outline of the proposed charter is certainly not all that the profession requires, yet by a little effort there is no doubt that greater privileges may yet be secured. It will, certainly, with its defects, be better adapted to the wants and wishes of the profession than the Apothecaries' Society; and, through the medium of a college in which the energies of the great body of medical practitioners can be consolidated, the work of redemption may at length be completed.

THE CROYDON CASE.

We have received a list of subscriptions already entered into to aid Mr. Bottomley and Dr. Berncastle in any step they may conceive proper, to justify themselves against the misconduct of the guardians of the Croydon Union. We are happy to observe this gratifying proof of the feeling evinced by the profession on what amounts to a general outrage; and in our next number we shall publish the list with any new accessions it may receive in the meanwhile.

THE POOR-LAW MEDICAL COMMITTEE.

We are anxious to direct attention to the report of the interview with Mr. Buller in another column—and especially to the resolutions recorded in that report as having been agreed to by the committee.

ASIATIC CHOLERA.

The Registrar-General, in this week's return, narrates a death occurring from this formidable malady in the East-end of London, after five days' illness. There will, probably, on further investigation, be found some mistake in this statement; but, coming from such high authority, there is enough in it to justify this brief notice, in order that the attention of practitioners may be awakened in this direction, if the report should, unfortunately, prove correct.

MEDICAL PORTRAITS.

Mr. Stone, of the College of Surgeons, has enriched the pictorial collection which he has undertaken to publish by two lithographs of our distinguished contributors, Dr. Todd and Mr. South. Privileged to bear testimony to the fidelity of the likenesses, and the felicitous skill of the artist, we cannot do a better thing than advise the readers of the *Medical Times* to testify their sense of the obligations they *owe*, and especially of those they *are to owe*, to these honoured

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ornaments of our profession, by adding forthwith the two engravings to the number of "their household gods." It is to such men as South, Todd, Rigby, and Fergusson — the subjects of these sketches—that we owe whatever standing the profession maintains for erudition, high talent, and true gentlemanly feeling.

IMPORTANT INTERVIEW WITH CHAS. BULLER, ESQ., M.P.

A deputation from the Committee of Poor-law Medical Officers waited, on Tuesday, the 18th inst., by appointment, on Mr. Buller, the president of the Poor-law Commission. The deputation consisted of Dr. Burton, of Walsall; Dr. Barnett, Mr. Bottomley, Mr. Liddle, Mr. Lobb, Mr. Vallence, Mr. Lord, Mr. Ross, and Mr. T. P. Healey, the honorary secretary.

Dr. Burton, after introducing the deputation, read the resolutions agreed on by the committee, as suggestions for the remedy of the grievances now complained of by poor-law medical officers. They are as follows:—

"1. That, in the opinion of the committee, it is essential that the payment of medical officers should be by a fixed salary, exclusive of fees for midwifery and important surgical cases.

"2. That the amount of salary might justly be fixed, either by an estimate of the average of cases attended during a series of past years, considered in connection with the area of the medical district, or by the payment of a certain sum per head on the population, corrected by the consideration of the relative density and poverty of the district.

"3. That, making every allowance for the difference which must exist in the remuneration of private and public practice, it would not be just that the salary should be based on a less amount than 6s. 6d. per case, with the charge varying with the area.

"4. That medical officers of workhouses should be paid a separate salary, based on the average number of inmates, at not less than 7s. to 10s. per head.

"5. That it is just and proper, and conducive to the interests of the poor, that an extra payment should be made, as at present, for midwifery and for important surgical cases; and that it appears to the committee advisable that the fees should be paid for cases occurring in workhouses, as well as in outdoor cases.

"6. That to the cases of surgery requiring payment enumerated in the general order of the poor-law commissioners should be added—

Fractures of the clavicle;
Fractures of the skull;
Retention of urine, when requiring repeated introduction of the catheter;
Severe burns and scalds;
And that £3 be paid for compound fracture of the arm.

"7. That the payments allowed for midwifery and surgical cases under the general order of the poor-law commissioners are satisfactory in amount.

"8. That in order to remove difficulties in the way of a more equitable payment of medical officers, and considering that half the union medical expenses are already paid from the Consolidated Fund, it is highly desirable that the whole expenses of the medical attendance on the poor should be removed from unions to the Consolidated Fund.

"9. That it is expedient that there be a director-general of the poor-law medical department appointed by Government, and exercising supervision over poor-law medical practice, in the manner of the other public services.

"10. That it is expedient that there should be inspectors-general of poor-law medical practice appointed by Government, and acting under the orders of the director general.

"11. That the inspectors-general, acting each in a district assigned to them, should examine the infirmaries of workhouses, inspect the reports of the medical officers, inquire into cases of alleged negligence, &c. &c., and that matters of disputed payment should be referred to them.

"12. That the medical officers of unions should be appointed by boards of guardians as at present, subject to the approval of the director-general; that their qualification should be as at present ordered, but that all future modifications of the qualifications should be made by the director-general.

"13. That the appointments of all medical officers should be permanent, that is, to endure until they die, resign, or are dismissed for some valid cause.

"14. That the forms of books or reports should be approved by the director-general, and should be as short and simple as is consistent with the requirements of the public service.

"15. That the access of the paupers to the medical officers should be made as ready as a due distinction between those who require parochial attendance, and those who do not, will admit. That in doubtful cases where illness exists, and there appears to be temporary destitution only, the board may grant medical relief by way of loan; that in such cases a fee of be paid by the board of guardians to the medical officer."

Dr. Burton then impressed on the president, that the grievances thus proposed to be remedied must be both numerous and oppressive, or the board would never have heard of so important a meeting as the Convention, or of so established an organization as that represented by the committee. The boards of guardians were potent, and medical men, for many reasons, wished to stand well with them. In so many gentlemen thus coming forward, therefore, publicly to perform a disagreeable and unpopular duty, there was proof evident that the cause impelling them was no ordinary one. The workhouse attended by Dr. Burton afforded no bad exemplification: though he was better paid and treated than most persons similarly situated, his yearly stipend barely covered the expense of the drugs and other medical appliances, and the last year it had even failed to do this; and he suggested the mischief that might arise where, from the pecuniary circumstances of the surgeon, or other causes, it would appear to him a less hardship to place the loss on the paupers, or indirectly on the ratepayers, rather than bear it longer himself.

Mr. Buller admitted that the higher cost of good medicines might act as an inducement, with some, to use them as little as possible; and he was directing his attention to that point as a great difficulty in the question.

Mr. Vallance showed that any system of drug depôts under the commission would be too expensive to succeed—a fact proved by recent unsuccessful attempts. He then enlarged on the general question of medical relief, and its hardships, especially on the non-permanency of appointments, and pointed out particularly the absurd and harassing way in which union surgeons, as exemplified in his own case, were obliged to keep their books; he had himself ten sheets of close-ruled columns, containing each nearly thirty names, to fill up every week—work enough for a copying clerk, and deserving to be paid at the rate of the surgeon's entire salary.

Mr. Buller suggested that if so, and the committee would favour him with matured recommendations for a change, he would gladly consider them, and, if he approved of them, would adopt them. As to what had been said on the permanency of officers and the appointment of inspectors, he had already in Parliament expressed his opinion, though he confessed that the frequent change of guardians was a point worthy of further attention, in connection with permanent appointments of medical officers.

Mr. Vallance then called Mr. Buller's attention to an advertisement which appeared in one of the provincial papers, requiring a medical officer for the Cleobury Mortimer Union, who would be required to undertake the entire duties of the office, under the prohibition of not engaging in private practice, for a salary of £180 per annum, which would include payments for midwifery cases, whether common or difficult; all fractures, amputations, and vaccination, the union supplying drugs, leeches, trusses, and all surgical apparatus whatever.

Mr. Buller avowed that the advertisement was published with his knowledge and sanction; that the plan proposed in it was not wholly new, and that he was inclined to look at it without disfavour, at all events as an experiment. Great abuse occasionally occurred under the present system, in consequence of some medical men ordering wine and brandy, instead of prescribing tonics; indeed, he was informed by one of the inspectors, that this course had in some instances been resorted to in cases of syphilis and gonorrhœa—maladies to which such treatment, he was told, was not quite suited.

Mr. Ross suggested that these were effects not unlikely under a ridiculously low system of remuneration, and that they evidenced the necessity of medical inspectors. He went at some length into these two questions, and was supported by Mr. Liddle, Mr. Lobb, and Mr. Lord, who insisted particularly that medical men should be responsible more to the commissioners, and less to the board of guardians.

Mr. Buller feared that the deputation took the same view of the Consolidated Fund that was fashionable in the House of Commons. It was unfortunately not so inexhaustible as it was fancied, and in the present day was less so than usual. He confessed, however, that he entertained the inclination already avowed by him in the House of Commons, to consider medical relief a question distinct from the ordinary poor-law administration, and one which should be put on a separate and more comprehensive footing, securing efficient treatment to the poor on the one hand, and fair, if moderate, payment to the medical officer on the other. During the sitting of Parliament he was obliged more especially to direct his attention to those matters which more or less might be brought before it in connection with the poor-laws; but immediately after the sitting of Parliament it was his intention to take up the whole question of poor-law medical relief, with the hope of adjusting what he already felt was the most difficult part of all his responsibilities.

It was then impressed on Mr. Buller that, as there appeared on other general questions to be little difference of opinion between himself and the deputation, it was of great importance that he should reconsider the opinion he had given on permanency of appointments. The qualifications of medical officers were doubly tested—by the College of Surgeons and the Society of Apothecaries; if incompetent or negligent, coroners' juries would be too ready to publish the proofs; these were guarantees possessed by no other officers of unions, although the others were permanent officers; besides, the frequent changes of guardians, amounting to a new set of masters, ignorant of all that had been done and said and explained before, and some of them, perhaps, personal opponents, made the appointment during pleasure a source of constant annoyance and vexation to the independent officer anxious to do his duty to the poor fully.

It was further remarked that, as there was yet some time to the breaking up of Parliament, it would be most desirable that the committee should be allowed to bring before him, in the interval, any cases of peculiarly striking hardship, that some of the worse parts of the present system might be got rid of as soon as possible.

Mr. Buller replied that he should be at all times very happy to receive from the committee any such communications; that he would not fail to give them his best attention, and that he should be obliged by any information the committee would favour him with on the subject of their interview.

After some further conversation, in which Mr. Buller repeated his impression as to the policy of a distinct organization of medical relief, the deputation, through their chairman, expressed

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their thanks for the marked courtesy with which he had heard their representations during a very protracted interview, and withdrew.

GOSSIP OF THE WEEK.

Liverpool.—It is proposed here, that a society be formed, called the Liverpool Medical Protective Society, having for object the promotion of the general and social interests, and the maintenance of the respectability, of the medical profession.

Oil-cake as Human Food, by Dr. Pluskal.—The poor in Austria have been led, by the scarcity of food, to use rape oil-cake as a substitute for bread stuffs. It was used mixed with two-thirds of wheat flour, and made into dumplings. Three cases are given where this produced symptoms of gastric disturbance, with vertigo and fainting. — *Oesterreichische Wochenschrift*, No. 13.

Naval Appointments. — Robert Grahame, surgeon, to the Bellerophon,—Surgeon: R. T. C. Scott (1841), late of the Talbot, appointed to the Hastings, 72, flag of Rear-Admiral Sir Francis Collier.

Obituary. — On the 11th inst., at Glasgow, James Henderson, Esq., M.D., late of Clyth, in the county of Caithness.—On the 11th inst., at 30, Cumberland-street, Edinburgh, Alex. J. Pilmor, Esq., surgeon, R.N.—On the 14th inst., at Teignmouth, Devon, John Spens, Esq., M.D.

MORTALITY TABLE.

For the Week ending Saturday, April 22, 1848.

Causes of Death.	Total.	Average of 5 Springs.
All Causes.....	991	943
Specified Causes...	988	939
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	252	176
Sporadic Diseases.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat	36	50
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	101	122
Diseases of the Lungs, and of the other Organs of Respiration	186	129
Diseases of the Heart and Blood-vessels.....	25	33
Diseases of the Stomach, Liver, and other organs of Digestion	52	62
Diseases of the Kidneys, &c.	12	10
Childbirth, Diseases of the Uterus, &c	11	12
Rheumatism, Diseases of the Bones, Joints, &c. ...	8	9
Diseases of the Skin, Cellular Tissue, &c.	1	1
Old Age.....	45	55
Violence, Privation, Cold, and Intemperance.....	9	29

NOTICE.

Subscribers in Arrear are respectfully requested, in conformity with the terms of their subscriptions, at once to forward their remittances to the office.

☞ The subscription for the stamped edition of the *Medical Times* is 15s. for the half-year, and £1. 5s. for the year, paid in advance. Post-office orders, or orders on parties in town, should be made out in the name of James Angerstein Carfrae.

TO CORRESPONDENTS.

The Index throws over to next week several communications—as also part of Mr. Wardrop's work.

In our next number—the first of a new volume—we shall commence the publication of a new series on the Philosophy (including the psychological relations) of the Hand.

"An Army Surgeon" may, without fear, engage in general practice, having been professionally employed prior to 1815.

"A Student, King's College,"—The responsibility of giving advice on the subjects mentioned by our correspondent would be too great; and we, therefore, feel it our duty to decline doing so.

"Mr. Craven."—All the numbers of the last volume may be obtained by application at our office, or through any respectable bookseller. The *Medical Times* is always published in time for Friday's post; the occasional irregularity may be obviated by sending direct to our office.

"A Young Practitioner."—The clinical lectures of Dr. Willshire, now publishing in our columns, will give the required information better than any book on infantile diseases with which we are acquainted.

"Spes."—We see no prospect of any medical bill passing this session.

"Mr. Richards's" suggestions will be attended to.

"Blue Jacket."—1. We decline prescribing through the columns of the *Medical Times*. 2. We know nothing of the virtues of the medicine referred to. The proprietor is an arrant quack.

"Beta."—Apply at the War-office.

"Physiologist."—The fact has been long known and lamented, that the vaccine virus has lost much of its protective power, and that, at the best, it affords but a temporary security against smallpox. A note addressed to the secretary of the National Vaccine Establishment will receive prompt attention.

"A Licentiate and Reformer."—We can offer no opinion on the probable duration of the Apothecaries' Company as a licensing medical corporation.

"Sydenham."—The method of administering sulphate of [illegible] in coffee, to deprive it of its bitter taste, has been objected to, because it has been supposed by some that its virtues have been injured. M. Desvouves, however, maintains that the medicine is equally efficient. This accords with our own experience.

"Lithotomist."—The "Remarks on the Method of Dissolving Calculi in the Bladder by Electricity" cannot be inserted unless authenticated. We shall feel obliged by our correspondent forwarding his name and address.

"Moxa" is too strong for our pages.

"L. A. C."—1. Our correspondent's qualifications will do for the Coelige of Physicians. 2. The fees are £56. 17s. for the intra-urbem licence, including the Government stamp; the fellow pays in addition £55. 1s. The extra licence costs £17. 9s.

"M. D."—Zinci sulphas is recommended on the authority of Dr. Graves.

"An Edinboro' Surgeon."—A prosecution can be sustained, as the college can confer no power to practise medicine in England.

"Paul Pry."—The Giessen diploma cannot be obtained without examination. The trickery of Dr. Bond and Co. will not now succeed.

"A Glasgow Surgeon."—The museum and library are open to persons not members of the college, on their obtaining a recommendation from a member.

"Psychologist."—Dr. Conolly had better be consulted.

"Mr. J. C. Bedford" should apply to the secretary of the Apothecaries' Society.

"A Medical Assistant."—The school is recognised both by Hall and College.

"M. G."—It is easier to collect lymph in a state of purity than chyle.

"Homo."—The apprentice is bound to serve his time, or the indentures need not be given up. Without these the Apothecaries' licence cannot be obtained.

"Chirurgus."—The treatment of aneurism by compression continues to be successfully employed. We should think from the description that the case is one in which it might be tried.

"Omicron."—We cannot recommend the medical galvanist.

"Sharp."—The fee is a honorary one.

"Amicus."—1. No fees are demanded from students in the Parisian hospitals. 2. The English corporations will not receive the certificates.

"F. D., Cheltenham."—Under the microscope the fluid is found to be composed of small white globules, floating in another fluid which coagulates with heat.

"Senex."—It rests with the Lord Chancellor, who fixes the scale of fees.

"J. L., Bedford," would impose upon us a difficult task. "The Catalogue of Medical Books," recently published by Mr. Highley, would, perhaps, be useful.

"Mr. Mizon."—Ice may easily be formed by mixing equal parts of nitrate of potash and hydrochlorate of ammonia, adding rather less water than is sufficient to dissolve the two salts. It may, perhaps, be necessary to place the water to be frozen in a fresh supply of the salts after it has been cooled down by the first mixture.

"A Constant Reader, Maidstone."—There is no difference between morphia and morphine, except that the latter is French and the former English.

"Medical Apprentice."—1. The principle of Marsh's apparatus is the production of hydrogen, which reduces the arsenic, if any be present, in the suspected fluid, and the reproduction of the arsenic in a metallic state, by burning the arseniuretted hydrogen gas, and condensing the reduced arsenic on a plate of porcelain or glass. 2. The numbers shall be forwarded.

"J. A. X."—The last edition of the U.S. Pharmacopœia was, we believe, published in 1842.

"G. G., Chelsea."—Yes.

"Mentor."—The communication is considered confidential.

"Medicus."—Yes: and the regulations extend to those prior to the period mentioned.

"An Old Student of University College,"—We will insert the communication received if our correspondent would kindly furnish us with his name in confidence. The statements are of a personal nature, and it would be improper to publish them without the guarantee we ask.

"A Naval Surgeon" informs us it is not true that Sir W. Burnett is opposed to a change being made in the position of assistant-surgeons of the navy.

"Argus."—The licentiats of the Apothecaries' Company is a "duly-qualified medical practitioner."

"Edinburghensis."—The paper is not suited to our columns.

"A British M.D."—The registrar of the college has stated that the clause of the act is not to have a retrospective operation. We would advise our correspondent to communicate with the authorities at the college.

"Quid Nunc" asks the question, "Has Professor Cooper been urged to resign his chair in University College by the Council of the College of Surgeons?"

"J. D., Walthamstow."—The medical examination at Oxford takes place in the second week of full Trinity term, commencing usually on the second Tuesday after Trinity Sunday.

"Mr. O. W. Barrald, Queen's Hospital, Birmingham."—The communications will be acceptable.

"H. H."—The communication has been received; pressure of matter has hitherto prevented its publication.

"A Constant Subscriber, Bristol."—A surgeon in practice prior to 1815 is not now an illegal practitioner.

"Mr. Buchanan, Hull."—Communication received.

"J. M. G.," who gives us his name and address, wishes to know whether or not the *penis* is the continuation of the backbone? We rather think not.

"Mr. Jeynes, Fleet-street."—The expression is incorrect, as there is a wide difference between a nerve and a tendon.

"Mr. Nathaniel Ward, Finsbury-place South."—Communication received.

"H. P. J."—Answers shall be given next week.

"Chirurgus Juvenis."—Communication received.

"H."—The want of temper and the want of "figure" go together. It is a very pitiable, but, under the circumstances, very excusable "*affaire*."

"P. S."—To the first question, No. To the second, Yes. To the third, *Yes*.

"P. M., Stafford."—There is a special exemption in his case by law.

"A Surgeon, Manchester," is eligible for the appointment.

"Medicus" is too exacting on a contemporary. At all events, we cannot take up the grievance.

"A Pupil."—The text-book on the subject is undoubtedly that of Dr. Rigby.

"Tracheotomy."—We hope to publish the case by Mr. J. Thompson in an early number.

"Argus."—We are compelled, by editorial and irresistible *necessity*, sometimes to notice the proceedings of the person named; but we are glad to avoid the repulsive subject where possible. Hence we decline the paper.

"Chirurgus Juvenis."—In our next, if possible.

"An Old Pupil."—The intrigues at the University College Hospital seem curious enough to ask a public investigation. We should feel favoured if sent copies of the documents.

"Senex" can obtain the information he requires at Somerset House. The returns of newspaper stamps by the House were vehemently opposed by the "unauthentic member" named.

"Mr. Ward's" communication has been received.

"H. P. F." will find the best answer we can give him in the resolutions printed in the report of the interview with Mr. Buller. To go further would be to compromise an important responsibility.

"Anatomical Sculpture."—Our readers fond of the fine arts will thank us for directing their attention to a work which, wonderful for the genius of the artist, is still more for the anatomical fidelity it displays—the Canon Crucifix in Regent-street. The work of an obscure monk without artistic education, it is so remarkable a production as to be not without its interest in a psychological point of view.

Letters and Communications have also been received from An Army Surgeon; A Student, King's College; Mr. Craven; A Young Practitioner; Spes; Mr. Richards; Blue Jacket; Beta; Physiologist; A Licentiate and Reformer; Sydenham; Lithotomist; Moxa; L. A. C.; M. D.; An Edinburgh Surgeon; Paul Pry; A Glasgow Surgeon; Psychologist; Mr. J. C., Bedford; A Medical Assistant; M. G.; Homo; Chirurgus; Omicron; Sharp; Amicus; F. D., Cheltenham; Senex; J. L. Bedford; Mr. Mizon; A Constant Reader, Maidstone; A Medical Apprentice; J. A. X.; G. G., Chelsea; Mentor; Medicus; An Old Student of University College; A Naval Surgeon; Argus; Edinburghensis; A British M.D.; Quid Nunc; J. D., Walthamstow; Mr. O. W. Barrald; H. H.; A Constant Subscriber, Bristol; Mr. Buchanan, Hull; J. M. G.; Mr. Jeynes, Fleet-street; Mr. Nathaniel Ward, Finsbury-place South; H. P. J.; Chirurgus Juvenis; H.; P. S.; P. M., Stafford; A Surgeon, Manchester; Medicus; A Pupil; Tracheotomy; Argus; An Old Pupil; Senex; Mr. Ward; H. P. F.; Anatomical Sculpture; Dr. Edger, Brough; Dr. Gregg, Cork; Mr. Roe, Eccles; Mr. Cox, Aldermaston; Mr. Young, Lewes; Mr. Sweeney, Cloonmell; Mr. Brownlow, Banbridge; Dr. Sheehan, Butevant; Mr. Langlais, St. Lawrence; Dr. Lees, Ashton-under-Lyne; Mr. Wallace, East Rainton; Mr. Kenny, Halifax; Mr. Hallett, Devonport; Dr. Pope, Somerton; Mr. Smyly, Dublin; Mr. Williams, South Brent; Mr. Hadden, Sedgley, &c. &c.

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